MARINE RECORD

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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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SUN SPOTS AND THE WEATHER.

It can hardly be doubted that systematic fluctuations exist in weather conditions. A succession of cold years is followed by several warm years, and a dry epoch follows a wet one. Can we connect these fluctuations with any known phenomenon, and do the variations recur with sufficient regularity to be called periodic and to admit of their being forecast?

Many attempts have been made to establish a connection between the periodicity of sun spots and the fluctuations in weather conditions. It is first necessary, however, to establish the sun-spot period. In the Monthly Weather Review for April, 1902, Prof. A. Wolfer, of Zurich, Switzerland, publishes a table showing the relative number of sun spots that have been observed each month since January, 1749. The numbers in the table have been plotted, and from the curves it appears that the so-called 11-year period, that is, the time between successive occurrences of maximum or minimum numbers of spots, is not a uniform interval, but has varied, since 1749, between 9.0 years and 13.6 years.

The duration of the period of increase of sun spots after a minimum, as also the duration of the period of decrease after a maximum, also shows a variation. Dr. Norman Lockyer, of England, thought the former had a cycle of 35 years, but Wolfer finds evidence that the periods of both increase and decrease have cycles of 55 years, and that the ratio between the two has the same cycle. He also finds that a short period of increase is followed by a high maximum of relative sun-spot numbers.

There are thus two sun-spot cycles with which to compare weather fluctuations: (1), the 11-year period in the relative sun-spot number, and (2), the 55-year cycle in the time of duration of the increase or decrease in the spot numbers. It can hardly be claimed that a relation has as yet been established between the 11-year period and the weather, and it will require many more years of observations than we now have to establish a relation with the 55-year period.

Proceeding to Enforce Lien—Arrest of Cargo.—The proper proceeding by a shipowner to enforce the lien given by such charter provision is by a libel, in conformity to admiralty rule 38, against the subfreight alone, with process requiring the holder of the bill of lading or owner of the cargo to bring the amount of the freight into court. If not so brought in, a summary process may issue against the owner of the cargo, or against the cargo. A proceeding against the cargo is not justified until after an order to pay in the freight; but, if a warrant of arrest has prematurely issued, and it is afterward ascertained that there is a contest which would probably have ultimately resulted in its issuance, the arrest will be retained, and compensation made in costs for the fact that it was premature. American Steel Barge Co. vs. Cargo of Coal ex the City of Everett, 115 Fed. Rep. (U. S.) 669.

CONSOLIDATION OF THE MARINE RECORD AND MARINE REVIEW.

With the issue of this week the MARINE RECORD will have ceased to exist as a separate publication. It has been consolidated with the MARINE REVIEW, and both papers will appear as one in the issue of Aug. 14. The MARINE RECORD is the oldest publication of its kind on the Great Lakes, having been established in 1878, and having appeared continuously since. The MARINE REVIEW was established in 1890. The immediate effect of the consolidation of these two properties will be the publication of a greater and more satisfactory marine paper than ever. The title of the consolidated publication will be MARINE REVIEW AND MARINE RECORD, and will be issued from the present offices of the MARINE REVIEW Publishing Co., 3941 Wade building, Cleveland. Every feature of interest and value in the RECORD will be continued in the combined publication. No one who has been a subscriber to or an advertiser in the RECORD will have cause to regret the discontinuation of this paper as a separate enterprise. Especial care will be taken to see that he is pleased by the amplification of every department which he has hitherto enjoyed in the RECORD; and by the introduction of a variety of features which have been the especial province of the REVIEW, in other words there will be no jot or title less to please but an hundred reasons why his favor should be strengthened. All this will be borne home to him by an inspection of the initial issue of the merged publication. He will find the journal printed upon a better quality of paper than ever, the types new, the articles timely and the illustrations as perfect as plates can make them. He will also find it more than twice as big as the publication he has been accustomed to. Nor need the subscribers and advertisers of the REVIEW have any misgivings. The character of the REVIEW will have expanded in the merger but will not have changed. Reliability of statement, accuracy of informaton will, as ever be its watchword.

The consolidation of these two properties has been upon the advice of the friends of both. Each paper was practically covering the same field of the Great Lakes, a field so compact that it seemed idle to attempt to divide so limited a territory and which could be more satisfactorily covered for both interests in one publication. Therefore the consolidation was agreed upon—a reflection of the economy of the time which seeks to produce the best product at the lowest cost. This is, indeed, the only principle upon which a combination of interests can ever hope to live and it is the principle to which the MARINE REVIEW and MARINE RECORD pledges itself. The paper will be bigger and better than ever. It will enter upon its merged life with a wider influence and a greater circulation and will undoubtedly be able to render its patrons a more potent service. It will be the only publication of its kind of any importance west of New York, and the only one of its kind whatever on the Great Lakes.

It would be a mistake, however, to suppose that the energies of the MARINE REVIEW and MARINE RECORD will be confined to the Great Lakes. The Great Lakes will be only a department, a great one to be sure; but its real field will be the maritime industry of the United States.

LOSS OF THE "CITY OF VENICE."

The wooden steamer City of Venice, 2,108 tons, Capt. Philip Broderick, owned by the McGraw Transportation Co., Bay City, and built in 1892, was sunk through collision with the Canadian owned steamer Sequin, on Lake Erie early on Monday morning with the loss of three lives.

The libel filed in the United States Court gives the following recital: "The libelant claims that the steamer City of Venic, which sunk in collision with the Sequin nineteen miles southeast of Rondeau, was staunch and strong and in every respect well manned.

"The night was clear with a light southerly wind and no sea. At about midnight the lights of an upbound boat which proved to be the Sequin was made a long distance ahead, and on the starboard bow apparently on or about an opposite and parallel course. The respective courses of the steamers being such that if continued they would pass a safe and proper distance starboard to starboard; that said steamers continued to approach, the Seguin showing to the City of Venice her green and range lights and there was every indication that the steamers would pass each other starboard to starboard without risk of collision, until they approached within a short distance of each other, the Seguin being well to starboard when the said steamer Seguin began to swing to starboard and toward the City of Venice; thereupon a signal of two blasts was sounded to the Sequin and the City of Venice starboarded; the Seguin did not answer said passing signal but continued to swing toward the City of Venice, the engines of the City of Venice were reversed and backed strong, and alarm sounded and every effort made on her part to avoid a collision, but the Seguin, without apparently checking or making an effort to avoid the collision came on at full headway, and struck the City of Venice on the starboard side about midway between the fore and main rigging cutting in and damaging her so that she filled and sank quickly, three of the crew being drowned.

"The said steamer City of Venice and her cargo of ore, and crew's effects were totally lost; that the value of said steamer was $100,000, her cargo $10,697.57, her freight, $2,403.75 and crew's effects $1,000, making your libelant's damages as owner and as bailee of cargo and seamen's effects $114,101.32 for which, with interest thereon, from August 5, it makes claim against the said steamer Seguin.

The libelant alleges fault against the said steamer in the following particulars:

"That she had no proper or efficient lookout.

"That the persons composing her watch were incompetent and inattentive to their duties.

"That she did not keep her course when the positions and courses of the steamers were such that they would pass each other in safety.

"That she wrongfully changed her course to starboard and ran into the City of Venice at such time and under circumstances that it was impossible for the City of Venice to avoid the collision.

"That she did not stop or reverse her engines or make any effort to avoid such collision after risk of collision became apparent."

The Seguin is a steel steamer built at Owen Sound in 1890, valued at $90,000. Her gross tonnage is 818 tons and 556 net, owned by the Parry Sound Lumber Co., Owen Sound, Ont.

SAILING DIRECTIONS.

The Hydrographic Office, Navy Department, has just completed the publication of the sailing directions for the Great Lakes in four parts, as follows:

108A—Lake Superior and St. Mary's river.

108B—Lake Michigan, Green Bay and the Straits of Mackinac.

108C—Lake Huron, Straits of Mackinac, St. Clair, Detroit and St. Mary's rivers.

108D—Lake Erie and Ontario, Detroit and St. Clair rivers No. 108D is the last of the series and is correct to June 7, 1902.

These books are all complete, and beside giving very minute descriptions of all aids to navigation, such as distances between ports in statute miles, rules of the road (White laws), the barometer and the law of storms, use of oil at sea, storm signal stations, life-saving stations, tables, local and standard time, variation of the compass, use of azmuth tables, registration of letters at marine post-offices, etc.

DETROIT.

A revision in colors of St. Lawrence river No. 6, has just been issued and is now on sale at the U. S. Lake Survey Office, 33 Campau Building, at 15 cents per copy.

Secretary Barter of the International Longshoremen & Marine Transport Workers' Association has decided to aid the striking coal miners and will endeavor to raise $10,000 for that purpose.

The following meteorological observations are furnished by the office of the United States Weather Bureau at Detroit for the week ending August 5th, 1902: Prevailing wind direction for the week, northeast; highest velocity, 21 miles from the southwest on the 5th; mean temperature for the week, 74°; highest temperature, 86° on the 3rd; lowest, 60° on the 4th.

Capt. H. W. Baker has taken a contract to raise and deliver at drydock the wooden steamer City of Cleveland, sunk off Fitz William Island, at the entrance of Georgian Bay, September 16, 1901. The steamer was owned by M. A. Bradley, of Cleveland, for whom the wrecking will be done. Capt. Baker's wrecking tug, J. W. Snook, is being fitted out for the job and will leave here in a few days.

Mr. A. M. Carpenter, of Port Huron, representing the Jenks Ship Building Co., has closed a contract with this city for a new fire boat, which will be constructed with all the modern devices and apparatus. The fire commission has had the matter under consideration for some time and when the Jenks Co.'s proposition came before them the contract was closed. The boat will cost considerable and will be a fine addition to Detroit's already well equipped fire department.

Secretary-Treasurer Henry C. Barter, of the International Longshoremen, Marine & Transport Workers' Association, issued four new charters on Monday. They were to local at Taunton, Mass.; Des Moines, Ia.; Philadelphia, Pa., and Raber, Mich. There are now 368 locals in the association, and of these sixty-three are in Michigan, giving the I. L. M. & T. A. more locals in that state than any four other international associations. Ohio is second with fifty-one locals. Mr. Barter will soon leave for the Atlantic coast on an organization tour, making New York, Baltimore, and Philadelphia the leading centers.

The largest raft of logs that has passed down the Detroit river in many years, was towed last week to the "pocket" of the Saginaw Salt & Lumber Co., at Sandwich. The consignment, valued at $100,000, consisted of over 57,000 logs, containing 5,000,000 feet of lumber. It is estimated that it will consume at least two months' time to convert the logs into lumber. The logs were cut in the forests about Spanish river, Ont., and were driven 200 miles down stream on the north shore of Lake Huron, where they were surrounded by bag booms and towed by two tugs to Sandwich, the entire journey occupying 17 days. It was deemed dangerous to take the big field of logs down the narrow waters of St. Clair river, so the boom was divided and placed under separate tows.

It is expected that the steamer City of Cleveland will be back on her route again by Monday, Aug. 11. The company had a spare staff all ready in the event of such an accident taking place at any time. When an examination was made of the damage done by the breaking of the shaft, it was found that the starboard wheel was held in the paddlebox by not more than two or three inches of the shaft. Had the side-wheel have gone altogether it is quite likely that the Cleveland would have gone over on her beam ends if not capsized entirely owing to the weight of the port wheel. As an indication of what risks London Lloyds will assume it is now stated that General Manager McMillan, of the Detroit & Buffalo Line has made arrangements for earnings insurance on the steamers Eastern and Western States. Some time before the Eastern States broke her high pressure cylinder, application had been made for such indemnity, but at the time London was busy preparing for the coronation and arrangements could not be completed. Had the line been able to get the insurance at that time it would have made a difference of $20,000, as the D. & B. Line would have been paid nearly that amount for losses while the boat was idle. It is understood, however, that Mr. McMillan has a policy on the D. & C. Line boats whereby the firm is indemnified in the sum of $1,000 per day for each day a boat is out of service, up to a certain limit.

Declarations.—A stevedore contracting to load a ship, and for such purpose using appliances belonging to the ship, is charged with the duty toward employes of seeing that the appliances are safe. Young vs. Hahn, 69 S. W. Rep. (Tex.) 203.

BUFFALO.

The Northern Steamship Co. has chartered the steamer Oscar T. Flint to carry rails for the Great Northern railroad from Conneaut to Superior.

Collector of Customs Brendle imposed a penalty of $100, last week, on the tug Alpha, of the Hand & Johnson Line, for carrying passengers without a license.

Alfred Smith, who has been superintendent of the Buffalo Drydock Co. for the past eighteen months, coming here from Cleveland, has been transferred to the South Chicago shipyard, by the American Ship Building Co. He is succeeded here by his former assistant, W. T. Hevins.

The charge against Capt. Samuel Golden of the tug Lattimer for fast running in the harbor has been dismissed. Major Symons expressed the opinion that there had been no wilful violation of the law and believes that the cases already heard will restrain the harbor tug captains from further offenses.

Reports for the month of July show that the upper lake ore shipping ports sent 4,000,000 tons and upwards down the lakes. That beats any record that has ever been made for any month on the chain of lakes and is equal to the shipment during this year of upward of 23,000,000 tons, perhaps 24,000,000.

Attorney Harvey L. Brown, acting for Capt. George Tripp, whose license was suspended by the Local Inspectors for carrying passengers on the tug Alpha, has filed an appeal, and the case will be tried over again before the Supervising Inspector of the district, Capt. James Stone, stationed at Cleveland.

The tug Acme, of the Great Lakes Towing Co., run down and sunk off Buffalo early this spring by the Lehigh Valley Line steamer Wilkesbarre, is a total loss. The Acme was valued at $12,000, uninsured, and it is a question whether the late owners will be able to get any damages from the Wilkesbarre's owners.

The steamer City of Venice, sunk on Lake Erie through collison with the Sequin early on Monday morning last, had on board 3,245 tons of ore, consigned to the Lehigh Valley of Buffalo. She was insured for $75,000, of which Mesrs. Smith, Davis & Co., of this city, carried $8,000. The balance was divided among several companies.

Receipts of grain from the opening of the season to August 1 were 42,061,724 bushels against 50,484,256 bushels for the corresponding period last season. Flour receipts were 1,244,348 barrels against 1,441,139 last year. The receipts of iron ore this year show a big gain, the figures showing receipts of 925,805 tons as compared with 362,805 tons to Aug. 1, this year.

All of the retail anthracite coal trestles are closed except the Erie, and none will be shipped by lake until some time after the resumption of work at the mines, as there will be a great shortage to make up after the strike is settled before any coal can go into vessels. The west and northwest surely suffer this winter from a lack of hard coal, as it has never done before.

Thursday night last the steamer Yakima was towed in by independent tugs. The Yakima had a heavy ore cargo, and in the river near the Williams coal dock she stuck fast on the bottom. When the captain of the Yakima desired to move his boat to the Lehigh Valley ore dock, he secured two Great Lakes Towing Co. tugs, the Hebard and Conneaut, and they succeeded in floating the steamer and towed her to her dock.

The receipts of lumber at the Tonawanda ports, as shown by the reports from the customs officers for the month of July, were 63,427,875 feet. Since navigation opened this season there has been 167,969,765 feet of lumber brought to the Tonawanda ports, and for the same period last year there was 166,236,941 feet, which indicates that nearly 2,000,000 feet more of lumber have arrived so far this season than during the same period last year.

The Chicago and Troy had another speed trial this week on the passage from Superior to this port. Every foot of the ground was contested and the two large cargo steamers came along almost side by side the whole way. The Chicago, however, reached here first, and, all things being equal as regards fuel, trim, etc., she must now be considered the fastest boat. The Western Transit Co. have two good ships in the Troy and Chicago. The Troy is a steel steamer of 3,655 gross tons, built by the Detroit Ship-Building Co. in 1898, and the Chicago is a wooden steamer of 1,847 tons, built at Cleveland in 1879.

"The finest in the country, and nothing like it on the Great Lakes," says Major Thomas W. Symons, United States engineer, concerning the new South Buffalo lighthouse, which is nearing completion. The light is located at the north end of the south section of the great Buffalo breakwater, and its purpose is to mark the south entrance to the harbor. Its location gives it its name, the South Buffalo light. The tower, which is already completed and merely awaits the installation of the lantern, reaches up to the height of eighty feet, and is of substantial wood framework, covered with steel. The design of frame towers is new in the Light-House Department, and there is no other house built like it on the lakes. There are some building and built on the Atlantic coast.

DULUTH-SUPERIOR.

It is reported that the fee owners of the Arcturus mine in Itasca county now hold their property at $1,000,000. George C. Howe and P. L. Kimberly lately allowed an option to purchase it at $750,000 to lapse.

The steamer Whitworth is in drydock here as a result of grounding on the foul bottom near Port Huron. It will be necessary to take seventeen shell plates off during the course of repairs, which will require another week.

A dispatch from Ely announces that the fee owners of the famous Section thirty, or rather the 320 acres owned by Messrs. Merritt, Fagan, Eaton and Lonstorf, ask a bonus of $4,000,000 and a royalty of fifty cents for a lease on their property. The fee owners and their representatives, however, decline to discuss the question.

The United States local inspectors of steamboats, Messrs. Monaghan and Chalk, hull and boiler inspectors respectively, canceled the license held by Capt. Fitzgerald, late of the George G. Hadley. The case was appealed to the supervising inspector of the district, Mr. John D. Sloan, Dubuque, Ia., who affirmed the decision of the local inspectors at Duluth. There is now no further recourse for Capt. Fitzgerald, except to wait for the date of expiration of the cancelled document and then to appear as a candidate for examination for another five year term license.

A complete government survey of Torch lake is being taken by Major Marr, Corps of Engineers, and his assistants. Not only are soundings of the depth of water being taken but the location of all docks, warehouses, mills, smelters, coal sheds and the like as well. The purpose is to procure the data for a complete map of the lake. The map will be made in the office at Houghton, after which it will be sent to Washington, where copies will be printed. A similar map of Portage lake is being prepared, the data for the same having been secured during the winter and spring.

The whaleback steamer Thomas Wilson, lying near the entrance to Duluth harbor, will be sold August 15. The transfer of this sunken wreck will probably be the last of the craft. The recovery of the bodies of nine men who went down with the Wilson in collision with the steamer Hadley, nearly two months ago, has been abandoned. No attempt will be made by the Pittsburg Steamship Co. to either raise the large steel vessel or recover her cargo of iron ore. No reason is assigned for the sale except as the owners are not in the wrecking business they don't care to undertake the work, although the value of the vessel even as she lies, is said to be considerable. The boat afloat was valued at $200,000, and the cargo which went down with her was worth $10,000.

Over $2,000,000 will be expended this year by the Wisconsin & Michigan railway in the furtherance of improved plans in the ore-carrying trade from the mines to the eastern furnaces. Next fall the Wisconsin & Michigan railway will have a road into Norway, Vulcan and Quinnesec and to Lake Superior through a rich ore and timber belt. Side tracks will be laid to all the mines in the vicinity of Norway, Vulcan and Quinnesec. The plan is to load ore into the cars at the mines, send them over the Wisconsin & Michigan to Peshtigo, and then by car barges to South Chicago, thence into the interior points of Pennsylvania and Ohio, where they will be unloaded at the furnaces. The company will build a fleet of car barges with a capacity of 50 tons to the car.

The steel tow barge or schooner John Smeaton, of the trust fleet, has just cleared from Two Harbors with the biggest cargo ever carried from a Great Lakes port—7,461 gross, or 8,440 net tons. This leads her own hitherto unbeaten record of 7,413 gross. The Edenborn, of the same fleet, owned by the Pittsburg Steamship Co., holds the steamer record of 7,414 gross. It is learned that an important discovery of iron ore has been made thirteen miles north of Two Harbors and fifty miles south of the recognized southern limits of the Mesaba and Vermillion range formations. Considerable excitement has been occasioned as it is believed that a new iron ore district has been found. Some of the big ore companies have experts examining the new discovery, with the territory round about it. The new find is near Highland station, on the Duluth & Iron Range road, in Lake county.

The first claim against W. P. Rend, Chicago, owner of the steamer George G. Hadley, on account of the sinking of the Thomas Wilson off Duluth June 7, has been filed in the United States Court here. The action is to recover $5,000 for the life of Guy Fink, of Toledo, who was second cook on the Wilson. The claim is filed by Jacob E. Fink, administrator of the estate. As there were nine lives lost on the steamer Wilson, it is not improbable that eight more similar claims may be filed. Official notice to possible claimants against Mr. Rend or the steamer G. G. Hadley, has issued from Judge Lochren. They were told that they must file claims on or before October 2, the same to be considered at the October term of the United States Court at Duluth. The steamer Hadley was appraised at $23,127.93 and the cargo at $870.30, making a total of $23,998.23. Under the law the claimants are restricted to the appraised value of the steamer Hadley and her cargo.

CHICAGO.

Grain rates advanced to 1¼ cents on corn to Lake Erie on Monday, and 1⅛ cents to Goderich.

W. L. Brown, of Chicago, president of the American Ship Building Co., says "there is a shortage of about 130,000 tons of hard coal as compared with last year and there has but little reached here by rail and less by the lake last month. In soft coal an increase of 310,000 tons is noted over last year."

The Manitou claims another speed victory over the Great Northern Line twin screw passenger steamer North-Land, and according to advices received from Capt. McIntyre he passed and re-passed the North-Land at pleasure between Chicago and Mackinac, calling at way ports, last Saturday and Sunday.

It is expected that next season steamboat companies will sell tickets out of Chicago good for connections with an electric line between Benton Harbor and Dowagiac, Mich. Chicago capitalists are reported to have bought the interests of William Dillon and others in the projected line, for which the grade is prepared between Benton Harbor and Cassopolis.

Capt. Fay Nyman, one of the oldest tug captains on the Chicago river, committed suicide last Saturday night by taking carbolic acid while on a breakwater opposite the lake shore drive. Capt. Nyman retired from active service ten years ago. In that year he was in charge of the tug W. R. Crowell, of the Dunham Line, which sank in a storm off Michigan City. Capt. Nyman was sixty-one years of age.

Capt. David Morris died of Bright's disease at his home in South Haven, Mich., Saturday. He was born at Ithaca, N. Y., February 15, 1839, and went to South Haven in 1866, since which time he had sailed on Lake Michigan. He was successively master of the schooners Fairy Queen, Mary Packard, Marvin Hannahs, South Haven and of the steamers Mary Groh, St. Joseph, H. W. Williams and Kalamazoo.

It is now reported that there is not a ton of hard coal in Milwaukee and that orders placed early in the season have not yet been filled, nor is there any indication when they will be. As Milwaukee receives nearly as much anthracite in the season as Chicago, the loss will be greatly felt. Chicago did manage to send out about 1,000 tons last month as compared with 18,000 tons for the same time last year, and there is a little here yet, but very little at that.

President W. L. Brown, of the American Ship Building Co., announces that the various yards of the company have all the work they can handle up to the opening of navigation in the spring of 1903. Contracts for 29 modern steel steamers have been booked, aggregating between $8,000,000 and $9,000,000. He says that in spite of the large increase of tonnage there need be no fear of an overplus, as the commerce of the Great Lakes is increasing in like proportion.

Vessels frequenting this port are complaining about the fleet of naphtha launches and small power craft which operate chiefly from the foot of Randolph street viaduct to the north pier and outer breakwater. These small craft float around at night without showing any light and apparently in the hands of reckless or careless people, as they cross the bows of large vessels and occasion anxiety as no one would like to run them down, or give their occupants a ducking, if nothing worse.

The Chicago vessel repairing firm of Johnson, Knudson & Co. has gone out of business, the property of the concern has been bought by Theodore Knudson, who has in turn transferred the same to the Manitowoc Drydock Co. The latter will conduct the newly acquired plant on the north branch, between Erie street and Chicago avenue, in connection with the Burger & Burger plant at Manitowoc, also recently taken over by the Manitowoc Drydock Co. Mr. Knudson will remain in charge of the Chicago yard.

While proceeding up the river on Sunday without a tug the steamer Yonkers of the Western Line failed to make the turn into the south branch at Lake street and rammed the west abutment of the bridge. The impact threw the surface car and elevated tracks out of position and it was some time before traffic could be resumed. The long series of accidents to the city bridges caused by steamers moving in the river without tug assistance is likely to bring forth an order from the harbor master that all large steamers in the future must take tugs. The city already has a bill against the Western Line for damages to the Dearborn street structure by the Montana.

Working agreements between the Michigan railroads and the passenger steamer lines out of Chicago and Detroit have been made which promise to cut a deep hole in the east bound passenger traffic of the rail lines. Thus far passengers have been booked at $8.50 for the round trip, Chicago to Niagara Falls and return, and routed over the Graham & Morton Line to Ottawa Beach, thence by the Pere Marquette to Detroit, and from there to Buffalo by the fine new steamers Eastern-States and Western-States. The ride is made still more attractive by giving the passenger stop-over privileges on the return at Ottawa Beach, thus permitting a sojourn at the Black Lake and adjacent resorts. All of the other cross-the-lake passenger lines are making equally attractive propositions on Niagara Falls excursion business. The combination grows out of the attempt of eastern rail lines to swamp the new Detroit & Buffalo boat line by cutting rates.

Two hundred pasengers on the Graham & Morton Line steamer City of Milwaukee were given a severe scare on Chicago river this afternoon, when the steamer collided with the schooner Richard Mott, denuding it of its headgear and wrecking the forward portion of the hull. Panic was threatened when the crash came, but officers of the steamer went among the passengers and succeeded in reassuring them of their safety. The collision was caused by both approaching an open draw of Rush street bridge at the same time, and the schooner being unable to get out of the steamer's way. The Milwaukee continued on her trip across the lake without stopping after the accident, having escaped without injury.

Sir Israel Tarte, Canadian minister of marine, was in Chicago last week on the steam yacht Lord Stanley, his official boat. Accompanying the minister were Jas. Howden, superintendent of dredging, and Louis Cost, chief engineer of the Canadian department of public works. The party inspected Chicago harbor and collected data relating to the depth of water in the harbor and along the lake front, the amount of improvements being made by the government here, and the annual volume of commerce out of Chicago with particular reference to Lake Ontario and the Georgian Bay district. Sir Israel and party left for Milwaukee, whence they proceeded to Georgian Bay, completing the longest tour ever made by a Canadian marine official on the Great Lakes.

Though it was said when the steamer Yonkers hit the abutment of Lake street bridge last Sunday night that the steamer escaped without damage, a survey of the hull sent her to drydock at the yards of the Ship Owners' Dock Co., that two large bow plates were cracked and her stem was crushed. Repairs to the vessel will take a week and cost about $2,000. City Diver Donovan examined the damaged abutment at the bridge, finding the big mass of stone and concrete badly broken below the water line, and confirming the bridge department's belief that a new abutment will be necessary in a short time. The Yonkers and Montana, Western Line boats, frequent in river collisions this season, are protected by collision insurance, and the cost of replacing the city's broken bridges will fall upon the insurance companies.

PORT HURON

Lynne Bros., marine reporters, are doing a fair business in chartering boats to carry lumber from Sarnia to Saginaw pine ports.

Townsend & Downey, of Shooters Island, received the contract to build the new light-house supply boat for Buffalo.

The tugs Florence Aldrich, Winslow and Sarnia towed a very large craft from Georgian Bay to Sarnia for the Edward Hall Lumber Co. She is the largest craft ever brought down.

The Northwestern Transit steamer Huronic, United Empire and Monarch are having a fine season and a large number of southern people are taking advantage of those fine ships and are making the Lake Superior trip.

The frames of the new steel steamer which the Jenks Ship Building Co. is building for the Cowell Transportation Co., of Cleveland, it now up. The new vessel will be almost a sister ship of the Steinbrenner and is 440 feet long, 28 feet deep and 50 feet beam, and will cost $275,000.

The Jenks Ship Building Co., of Port Huron, successfully launched the U. S. Government light-house tender Hyancinth, from their yards. Her dimensions are as follows: Length, 160½ feet over all; beam, 28 feet; hold, 14 feet; engines, 22x42x36, and fitted throughout with Phoenix metal, 2 Scotch boilers, 11½x11 feet. She is fitted with all the latest improvements and is a fine looking craft. The Jenks company are to be congratulated on turning out such a steamer. The Hyancinth will be used on Lake Michigan and stationed at Milwaukee under the command of Capt. Marquette, formerly of the steamer Frank L. Vance.

The car ferry International will begin ferrying cars across the St. Clair river at Port Huron from the Pere Marquette slip at the foot of Court street to Sarnia this week. The connection will give an outlet from all eastern and southeastern points on the Pere Marquette and the Lake Erie & Detroit River Railroad, which will have a running arrangement with the Michigan Central at Courtright, and the Canadian Pacific and Wabash at Chatham, and also will connect with Cleveland by car ferry from Rondeau across Lake Erie. No car ferries have been run since the tunnel was constructed by the Grand Trunk across the St. Clair river.

CLEVELAND.

Capt. W. G. Rogers qualified this week at the Custom House, as master of the steamer Alex Nimick, of the Gilchrist fleet.

The freight situation is unchanged all around, but some of the Lake Erie ore docks are in worse shape than they have been all season. Ore and coal carriers are crowded pretty badly and considerable time has been lost this week.

The handsome wooden built yacht Louise, 22 tons, is now owned by Capt. James Corrigan. She was built in New York in 1895, and carries a pipe outside and under her bottom. She is classed and rated in Inland Lloyds, A1, at a valuation of $12,000. It is rather a coincidence that a steel built steamyacht of the same name and tonnage has been turned out by the Racine Boat Manufacturing Co., for Mr. John J. Mitchell, Chicago.

A London cable says: The Allans and the Elder-Dempster Steamship Companies jointly, also the Furness Line and several others, have tendered for the proposed fast Atlantic service between Canada and Great Britain. The C. P. R.'s offer would entail an outlay of $25,000,000, each passenger steamer, costing $4,000,000. The freight vessels would cost on an average $900,000 each. Insurance circles regard the proposal to make Quebec the summer port as a mistake.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau for the week ended August 6: Prevailing wind direction during the week, north; highest velocity, 21 miles on the 3rd; mean temperature for the week, 70°; highest, 84° on the 3rd; lowest, 60° on the 5th. Sunrise and sunset data computed for local time at Cleveland August 9th: Sun rises at 5:00, sets at 7:10; August 12, sun rises 5:03, sets at 7:06; August 15, sun rises at 5:07, sets at 7:01.

The Chase Machine Co., Elm street, is building an automatic steam towing machine for the Newport News Ship Building & Dry Dock Co., Newport News, Va., which is the largest and heaviest machine of its kind ever constructed. It handles a steel wire towing hawser 2 inches in diameter. The increasing size of machines turned out by the Chase Machine Co., has compelled the company in the last few weeks to add a 7-foot planer bought by Mr. Chase in Cincinnati, and a 94-inch swing lathe to its equipment.

Speaking about the strike now on, one of the tugboatmen said: "The lawyers seem to think that because we procure a license from the inspectors we put a chain around our necks, I would like to know what a lake license has to do with our conduct or actions anyway, when not working on a boat? We'll have to cringe to the inspectors when we want to take a vacation, or go up town to buy shoe laces, not to mention getting married, divorced, or buried. These lawyers seem to know all law and d—d little common sense."

Reports from all ore docks at the upper lake ports have been received, and the figures show an increase of 50 per cent. in the movement of ore up to Aug. 1, compared with last year. The shipments for July were 4,073,386 tons, which is an increase of 375,563 tons over the same month in 1901, when 3,697,828 tons were sent forward. The total movement up to Aug. 1 was 12,973,219 tons, and last year up to the same date shipments were 8,661,431 tons. The increase over last year's movement is 4,311,788 tons.

An examination of the damages to the whaleback steamer A. D. Thompson was made in drydock No. 2, and it was discovered that as a result of her grounding at Point Aux Barques, she will have to have eighty new bottom plates. As this indicates, she was badly battered up by the grounding. She will be in drydock for the next two or three weeks, and it will cost upwards of $15,000 to make the repairs. Aside from the total loss of the Wilson this is the worst damage to any of the Pittsburg Steamship Co.'s boats for the year.

One of the pioneer sailors of the lakes, Capt. Robert Montgomery, passed away last week, at his home on a farm near Willoughby, at the age of eighty-seven years. Prior to twenty years ago he was one of the conspicuous figures in maritime affairs on the chain of lakes, but at the age of sixty-seven years he decided to retire, and took up his residence on a farm which he purchased. Before settling at Willoughby he had lived at Buffalo, from which port he first shipped as a sailor in 1837. This was before the time of railroads in this territory, and the travel along the lakes was done in a large measure in seasonable weather by boat. Capt. Montgomery was one of the first skippers to sail a passenger boat, and this plied between Lake Erie and Lake Michigan, and stopped at Buffalo, Cleveland, Toledo, Detroit and Chicago. He also owned and sailed a number of merchant vessels, among them being the old Cuyahoga, the Missouri, and the Sun, all steamers. Capt. Montgomery was at one time a shipmate of Capt. George P. McKay, the treasurer of the Lake Carriers' Association. Capt. Montgomery leaves one son and three daughters. The children are Robert Montgomery, Jr., of Cleveland, connected with the Forest City Audit Co.; Mrs. Laura M. Pourtales, Mrs. K. M. Furber, of Indianapolis; and Mrs. William C. Magill, of Chicago.

CONTINUED ON PAGE 11.

LAKE AND COASTWISE COMMERCE.

The commercial movement of the great staple commodities produced in the interior of the country are necessarily subject to something of a lull during the mid-summer transition from one crop year to another. There is, nevertheless, in the data collected by the Treasury Bureau of Statistics, on internal commerce up to the end of June, an opportunity for half-year comparisons of commercial movements.

Domestic freight receipts at 155 ports reporting in June were 7,442,982 tons, compared with 7,052,541 tons in June, 1901. Shipments from 224 ports in June this year amounted to 7,747,871 tons, against 7,201,208 tons in June 1901. For the first six months of 1901 and 1902 the freight receipts at lake ports aggregated 11,886,572 tons, and 18,135,978 tons respectively. Iron ore shipments to the end of June this year totaled 8,127,271 tons, compared with 4,457,276 tons last year.

Shipping operations at New York for the first six months of this year give the total number of vessels arriving as 5,915, of which 3,770 vessels were engaged in the coasting trade, and 2,145 in the foreign trade. At Philadelphia there were 2,441 arrivals, of which 1,823 were engaged in the coasting trade, and 618 in foreign trade. At Baltimore the total arrivals for five months only were 1,015 vessels, of which 934 were credited to the coasting trade, and 81 to foreign trade. New Orleans reports 649 vessels arriving during this year to the end of June, of which 193 vessels were engaged in coastwise trade, and 456 in foreign trade.

The three ports of New York, Philadelphia, and Baltimore together sent out 815,250 tons of coal by water to coastwise destinations during the month of May, and for the five months ending with May, 5,252,135 tons, as reported by the leading coal carriers and shippers at the principal points of trans-shipment., Coal receipts at Boston during the first six months ending with June totaled 2,286,004 tons, compared with 2,311,703 tons in 1901. Ordinarily these receipts are about equally divided between anthracite and bituminous, but thus far this year there has been a loss of 40 per cent. in anthracite tonnage, while bituminous receipts increased 10 per cent. over those of the first six months of 1901.

June coal traffic in the East shows a contraction of anthracite shipments, and an expansion of bituminous and coke shipments. Pennsylvania Railroad shipments east of Pittsburg and Erie amounted to 30,464 tons of anthracite this June, compared with 363,823 tons in June, 1901, Total shipments of coal and coke for corresponding half-year periods were as follows: 18,605,230 tons in 1902, 16,393,636 tons in 1901, and 16,147,222 tons in 1900. and 342,414 tons in June, 1900. Bituminous shipments in June of this year were 2,272,727 tons, compared with 1,509,940 tons in June 1901, and 1,428,050 tons in June 1900. Chesapeake & Ohio Railway carried 5,744,209 tons for 11 months ending with May 1902, compared with 5,014,118 tons in 1901. In the same period Southern Railway handled 3,139,499 tons of coal originating on its line. At Chicago anthracite receipts by rail and lake for six months were 453,716 tons, compared with 815,277 tons last year. Coke shipments from the Connellsville region averaged 11,241 cars weekly for the first 26 weeks of this year, and 10,600 cars last year. Texas petroleum shipments by water and rail during June amounted to 1,612,991 barrels of 42 gallons each. Pipe line territory reported 7,761,781 barrels of receipts for the same month. Six months' phosphate shipments, mostly from Southern ports, totaled 527,967 tons, of which 393,168 tons were foreign, and 143,729 tons for domestic destinations. The corresponding total for last half year was 415,682 tons.

STATUS OF THE TUG STRIKE.

At a conference held in Cleveland and lasting the greater part of Thursday last, between Senator Hanna, President Newman, of the Great Lakes Towing Co., President Keefe, of the Longshoremen's Association and President McCarle, of the Licensed Tugmen's Association, all the differences which have been responsible for the four months' strike of the tugmen were adjusted except one.

The union representatives insisted that all members of the Licensed Tugmen's Protective Association who refused to join in the strike after it was declared, or who have taken the trust tugs since, must be discharged.

This President Newman would not agree to do, and pointed out the fact that contracts for the season had been made with these men which could not be disregarded.

Although every other point was satisfactorily agreed to by both sides, the leaders of the unions said the tugmen could not return to work until the men who they claimed violated their obligation to the association were discharged.

Although President Keefe would not discuss the details of the conference, it was learned from what he said at the conference that under the circumstances the Longshoremen's union cannot render any assistance to the striking tugmen.

It is believed that the longshoremen will carry out their season contracts which prevent them from engaging in any sympathetic strike, and that they will make no shift to fight the battles of the tugmen.

THE INTERNATIONAL MARITIME CONGRESS.

The International Maritime Congress held recently at Copenhagen, unanimously adopted a resolution for the establishment of an international maritime union with a permanent bureau of navigation. This bureau is to consider all questions of interest affecting navigation. A long discussion took place on the subject of the words of command to the helmsman, Commodore Gjoedsen, and the other delegates proposing to introduce throughout the world the English words "right" and "left" and "hard right" and "hard left," instead of "starboard" and "port." This was opposed by Admiral Schmidt, the German representative, and others, and the result was the adoption of proposals to the effect that the words used should refer to the direction in which the ship's head is to be turned; that it should be left to each nation to decide for itself what words should be used; and that the Governments of the maritime nations should be requested to negotiate together for the best possible solution of the question.

"Meteorology and Earth Magnetism," on which a paper was read by M. Charles Benard, of the Ecole Centrale, Paris, setting forth the importance, for oversea navigation and the deep-sea fisheries, attaching to meteorological and oceangraphical studies of the North Atlantic ocean, and recommending the appointment of an international commission for collating the results of these studies. The Congress unanimously agreed with this suggestion.

Other matters connected with the shipping trade were brought forward and discussed, namely, the load-line, shipowners' liability for collision, wireless telegraphy, tubular boilers, territorial jurisdiction, the saving of life at sea, etc., and the three days' Congress (two sittings being held each day) was brought to a close, after the invitation of the King of Portugal to hold the next meeting at Lisbon had been gratefully accepted.

THE SOCIETY OF NAVAL ARCHITECTS.

The ninth annual volume of the Transactions of the Society of Naval Architects and Marine Engineers has just been sent out to members by the Secretary and Treasurer, W. L. Capps, Naval Constructor, U. S. N. The volume, which is the usual small quarto, contains all the papers read at the annual meeting last November, with the discussions. Among these is a very full account of the race between the steamers City of Erie and Tashmoo, on Lake Erie, from Cleveland to Erie, last summer; the lines of both vessels being given. Two papers of exceptional value are those submitted by Naval Constructor D. W. Taylor, U. S. N., and Rear Admiral George W. Melville, U. S. N., in competition for the Stevens prize, the subject being "The Theoretical and Practical Methods of Balancing Marine Engines." Prof. H. C. Sadler has a paper on "The Effect of Variation of Dimensions on the Stresses in a Ship's Structure." The remaining eight papers relate mainly to warship and torpedo boat design, armor and shells. The method of side launching is very fully described by Asst. Naval Constructor W. G. Grosbeck, U. S. N.

SOME EARLY ANTICIPATIONS OF MODERN INVENTIONS.

Of Rabelais' story concerning the "frozen words" which startled Pantagruel and his happy crew on the voyage to the oracle of the Holy Bottle, the world has long been familiar. Students of the great humorist maintain that the narrative of the "frozen words" must be taken to imply that their author had something akin to a prophetic vision of the phonograph.

In another direction it now appears that Rabelais played the seer and still nearer approached to a recent invention of unique creation. This relates to the "moving platform," a leading attraction at the Paris Exhibition in 1900, by which a passenger stepped on to a traveling road, or path, and was carried to his destination without further effort. If some features of this may be traced, by anticipation, to the mind of the old sage who defined rivers as "roads that travel," the real precedent is discoverable in the fifth book of Rabelais' series of masterpieces.

Rabelais, in the exuberance of his imagination concerning the Isle of Odes, where the roads travel of themselves, depicts Pantagruel and his gay mariners voyaging to the oracle of the Dive Bouteille, on the island of Odes. The term "odes," in spite of its associations, has nothing to do with poetry. On this pleasant isle where the roads travel of themselves, and thus (according to Aristotle's definition), must be classed as animals of locomotion, the traveler had simply to enquire his way of the road which was going to his destination, to get upon it, and so be carried, without further trouble, to the place he desired, "just as happens to those who take passage from Lyons down the Rhone to Avignon and Arles."

Who forgets that Mark Twain, some years back, amusingly propounded a similar fancy when he took passage (by slow freight) on a Swiss glacier?

At the present hour the traveling road or path is under experiment in the suburbs of Paris, and is possibly destined some day to supersede omnibuses and tramways.

In the light of these facts it seems hard that Friar Roger Bacon, the student of science before the scientific period, who predicted that one day carriages would move without horses, and ships cross the ocean without sails, should be laughed to scorn as an addle-brained monk, whom much learning had made mad.—James Johnston, in Cassier's Magazine for August.

LARGE DOCK CRANE.

What is said to be the largest crane in the world has recently been built for the Kaiser Dock, at Bremerhaven. According to the Shipping World, the total weight of the crane, including counterbalance, is 474¼ tons. It consists of a four-legged tower supporting a revolving center post, to which is attached a horizontal jib, one arm of which carries a counterbalance at the extreme end, and the other arm a crab capable of traveling from its extreme end to the edge of the tower. It is capable of carrying a test load of 200 tons. The maximum pressure on the foundation imparted through the center pillar, is about 520 tons, and the maximum horizontal force on the top of the tower about 98 tons. The total length of the jib is 164 ft., the height of gantry rails from the ground being 114 ft. 10 in. The crab contains the whole of the mechanism for lifting and traversing, the speed of the traverse being about 26 ft. per minute. The traveling mechanism is driven by a series motor, and the lifting mechanism by two motors.

ANNUAL IMPORTS AND EXPORTS.

It is now possible to determine accurately the movements of manufactures and manufacturers' materials in the foreign commerce of the United States during the fiscal year 1902.

The June report of the Treasury Bureau of Statistics, showing the imports and exports by articles for the month of June, and for the entire year compared with the preceding years, has just been completed. It shows that the total exports of manufactures are $403,890,763, against $412,155,066 in 1901, a reduction of $8,264,303. In iron and steel manufactures alone, the exports have fallen from $117,319,320 in 1901 to $98,552,562, a reduction of $18,766,758. Thus the decrease in iron and steel manufactures alone is ten million dollars greater than the total reduction in exports of manufactures, indicating that in other articles there has been a net increase. Taking the general class of manufactures exported, it may be said that a majority show an increase in 1902 compared with 1901, while some of the articles showing a decrease in value of exports show an increase in quantity, indicating that the reduction is due in some cases to reduced prices and not to reduced exports. In copper, for example, the exportation of ingots, bars, plates, etc., amounted in the fiscal year 1902 to 288,720,655 pounds, against 252,769,328 pounds in the preceding year, an increase of 35,951,329 pounds; while the value was in 1902, $39,190,619, against $41,260,376 in 1901, a reduction of $2,069,757.

ASTRONOMICAL DATA FOR AUGUST.

Astronomical data for August, 1902, furnished by the Washburn observatory:

Mercury passes through superior conjunction Aug. 11th, ceasing to be a morning star, and will be unfavorably situated for observation throughout the month. Venus is the bright morning star, but is diminishing slowly in brilliancy as it approaches the sun. Close to Venus, but drawing farther west through the month is seen the red planet, Mars. Saturn and Jupiter form a pair of bright planets in the evening sky in the southeast. The latter is a brilliant object and reaches the meridian far south towards midnight. Saturn crosses the meridian about one hour earlier and a little farther south.

The times of sunrise and sunset at Milwaukee for the month are as follows:

	SUNRISE.	SUNSET.
Aug. 1	4:41	7:14
Aug. 11	4:52	7:01
Aug. 21	5:03	6:46
Aug. 31	5:14	6:30

The times of the moon's phases are:

New moon	Aug. 3	2:17 p. m.
First quarter	Aug. 10	10:24 p. m.
Full moon	Aug. 19	12:03 a. m.
Third quarter	Aug. 26	5:00 a. m.

The principal fixed stars visible during the month in the evening hours are:

To the west: Arcturus and Antares. Near the meridian, Vega. To the east, Altair.

Evidence—Competency—Similar Facts in Connection with Same Transaction.—In an action against a steamship company for nondelivery of goods, it appeared that plaintiffs' agent purchased a quantity of goods from a firm in a foreign port, the sellers contracting to deliver the same on board ship at their expense; that the sellers stored the goods in a public warehouse, where they remained subject to their order only, until removed by them for delivery on board the vessel; that on delivery of the packages to plaintiffs they were found not to contain the goods purchased and described in the bills of lading. Defendant offered evidence to show that other packages, constituting a part of the same purchase and stored in the warehouse at the same time, which had been shipped by a vessel of another carrier, were found on delivery to plaintiffs to have been similarily tampered with, and their contents changed. Held, that such proof was strong and legitimate evidence to support defendant's contention that the substitution had been made by the sellers, who had the same motive and opportunity in both cases, and that the pendency of a similar action against the other carrier, involving the goods shipped by its line, constituted no ground for its exclusion. Cunard S. S. Co., Limited, vs. Kelley et al., 115 Fed. Rep. (U. S. 678.

SEAMEN KNOW YOUR BOOK.

The Coast Seamen's Journal, published in San Francisco, recently added a lake marine department to its columns, and from which we take the following:

"The Blue and Black books found in the possession of all seamen in good repute with the Seamen's Union are of greater value than many are aware. They are more than a card of admission, or a badge of membership. It is to the advantage of all who earn a living on the Lakes to have a thorough knowledge of their book. It contains working rules, wage scale, and other information too valuable to be slighted. Incidents have occurred time and time again, and very recently, causing loss of time and wages, which could have been averted by a reference to the Blue or Black book.

"To carry one of these books around in the pocket month after month and not have enough self-interest to become familiar with its teachings, is gross negligence and a disgrace to the intelligence of union seamen. 'Knowledge is power.' Acquire the power within your reach by knowing your book. Trust yourself, instead of relying altogether upon the official servants of the Union, and profit thereby."

This is the first report that has come to our notice regarding the Seamen's Union Blue or Black books.

Webster says that a Blue Book is a parliamentary publication, so called from its blue paper covers—such being commonly used; also, a book containing a list of fashionable addresses, such is the English understanding of the term. In the United States, it is a book containing the names of all persons in the employment of the government, with the amount of their pay."

"The Black Book—One of several books of a political character, published at different times, and for different purposes—so called either from the color of the bindings, or from the character of its contents. A book composed in the twelfth century, containing a description of the court of exchequer, its officers, their rank and privileges, wages, perquisites and jurisdiction, with the revenues of the crown, etc. * * *

"A book kept at a university for the purpose of registering crimes. * * * Any book which treats of necromancy."

The nearest we can come to any connection a Black Book has or had with marine affairs is from a so called ancient book of admiralty law, compiled in the reign of Edward III., of England. It has always been deemed of the highest authority in matters concerning the admiralty. Another authority in treating of the "Oleron Code" says: "It is a celebrated collection of maritime laws, compiled and promulgated by Richard Coeur-de-Lion, at the island of Oleron, near the coast of Poitou, the inhabitants of which have been deemed able mariners ever since. It is reckoned the best code of sea-laws in the World, and is recorded in the Black Book of the admiralty. The foregoing is surely enough reading about Blue Books and Black Books, whether in connection with the Seamen's Union the employes of our government or the British admiralty.—(Ed. M. R.)

LATEST MARINE PATENTS.

705,586.—Pile-driver. John H. Hopkins, Punsutawney, Pa.

705,784.—Hydraulic-dredger cutter. Raymond A. Perry, Oakland, Cal, assignor of one-half to Atlantic, Gulf & Pacific Co., New York, N. Y., and San Francisco, Cal.

705,866.—Adjustable screw-propeller. Edward E. Punzelt, Norwalk, Conn., assignor to Horace E. Dann and Oscar H. Banks, Norwalk, Conn.

EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the condition of the eastern freight market as follows:

More activity has been manifested in grain chartering, although the rates accepted are on a very low basis, particularly the charters made from Baltimore. At the same time it indicates a better inquiry from abroad, which is likewise fully reflected by increased engagements on the berth at advancing rates, and if the price of cereals declines still further, we anticipate a larger volume of grain business will be done. Prompt tonnage continues to find employment to cover the requirements of sugar charterers from Cuba, both on short time trips as well as at rates. The demand for timber tonnage from the Gulf continues limited, but there is a better inquiry for steamers for deals from the British Provinces, and charterers would be inclined to pay a slight advance over recent fixtures. Cotton charterers from the Atlantic and Gulf ports do not show any anxiety to fix ahead at the rates owners are at present asking, preferring to have more definite information as to the movement of the crop, before chartering.

Business in sail tonnage has been confined almost exclusively to the Far East case petroleum trade at barely settled rates, at which figures vessels for future loading appeared more readily obtainable. In other directions nothing of special interest has developed.

Grain to Liverpool, London or Glasgow 3 cents, Bristol or Newcastle 4½ cents, Leith 5 cents.

THE AIR SHIP.

Full of enthusiasm over his proposed trip around the Statue of Liberty in his airship, Alberto Santos-Dumont the aeronaut, returned last week on the steamship Kron Prinz Wilhelm. When Mr. Santos, as he prefers to be called, met the reporters on the pier, he asked a number of questions about his new airship that has just been completed at Brighton Beach. "How far has the work on my ship gone? How does it look? Has any one tried it, and has a prize been offered for the sail around the statue?" were some of the questions.

The inventor said that he had many new plans for the building of more ships, and new ideas for improvements on them.

"When I first became interested in aerial navigation," he said, "I discarded the aeroplane as useless. This was a mistake on my part, I have found, and in the future I am going to have them on my ships. They will not be applied in, what I think, the old clumsy way of making them so big that the extra weight renders them practically useless, but I have a much neater plan, which will make an airship as steady in the wind as a train of cars on land.

"The statement that I made when I went away that I could build a ship for $1,000,000 that would cross the ocean in two days was not a wild one by any means. I can do it, and if any one or more persons will supply the million I will keep my word."

When Mr. Santos was asked to explain more fully what effect the aeroplane would have on his ship he said:

"In all my ships there has always been an undulating movement which I could not overcome. The aeroplane will, I think, overcome this, and insure the steadiness which an airship needs.

"The ship at Brighton Beach is the Santos-Dumont No. 6, and is the same one in which I made my trip around the Eiffel tower in Paris. It is about the best ship I have got, and with it I expect to show the American people that aerial navigation is practical. This ship will carry five persons, but there will only be one in it when I make my trip, and, of course, that will be me."

George Francis Kerr, the secretary of the Aero club of America, who met the inventor on the pier, told Mr. Santos that his club had offered a prize of $25,000 for the trip around the Liberty statue. Mr. Santos said he was pleased to hear this, and was also gratified to learn that he would have competitors at the St. Louis exposition.

The Aero club, Mr. Kerr explained, was similar to the Aero club of France and England, and was run on the same lines. Mr. Santos said he was here for an indefinite period of time.

STATEMENT OF THE VISIBLE SUPPLY OF GRAIN.

As compiled by George F. Stone, Secretary Chicago Board of Trade Saturday, August 2, 1902.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels
Buffalo	680,000	533,000	68,000	4,000	8,000
Chicago	2,427.000	5.397.000	1,313,000	164,000	.....
Detroit	319.000	1,000	1,000	1,000	.....
Duluth	2,302,000	1,000	.....	1.000	55,000
Fort William, Ont	407,000	.....	.....	.....	.....
Milwaukee	35 000	4,000	1,000	1,000	47.000
Port Arthur, Ont.	155,000	.....	.....	.....	.....
Toledo	884,000	129,000	99,000	19,000	.....
Toronto	25.000	.....	25,00	.....	.....
On Canals	517,000	43,000	.....	26,000	9.000
On Lakes	415,000	218,000	400,000	.....	.....
On Mississippi Riv'r	.....	.....	.....	.....	.....
Grand Total	21,972,000	7,281,000	2,377.000	271,000	135,000
Corresponding Date. 1901	30,369,000	12 604 000	4,354.000	656,000	313.000
Increase for week	381,000	.....	1,483,000	21,000	35,000
Decrease " "	.....	215.000	.....	.....	.....

While the stock of grain at lake ports only is here given, the total shows the figure for the entire country except the Pacific Slope.

For a vacation tour it is widely announced that all one has to do is to board the palatial steamers of the Richelieu & Ontario Navigation Co. at Toronto, for a delightful sail through the picturesque Thousand Islands (America's Venice) thence through all the wonderful rapids to Montreal, where connection is made for a trip to Quebec, Murray Bay, and thence up the famous Saguaney river, the scenery of which is unequalled on the American continent. A man who lived in the midst of the finest scenery would enjoy going to Chicago for a change. The vacation must be recognized as a necessity to a large part of the population, especially to that part that earns its bread by the sweat of its brains. Professional people, employees in most organized industries, and many people who are neither, nowadays count on a mid-summer vacation of varying length according to circumstances. The leisure class miss most of the fun of vacations. Those who don't have to work for their holiday don't know the full pleasure of playing. The rich and favored may go "abroad" wherever that is. Most people who have vacations get a week, ten days, two weeks at the most, out of the fifty-two of each year, and it is to those people that a most enjoyable vacation is within easy reach.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLATED SPECIALLY FOR THE MARINE RECORD.)

Bill of Lading as Receipt—Conclusiveness.—A bill of lading is both a receipt and a contract of carriage, and as a receipt it is open to explanation. Cunard S. S. Co., Limited, vs. Kelley et al., 115 Fed. Rep. (U. S.) 678.

Authentication of Bills of Lading.—Bills of lading do not prove themselves, and the burden rests upon a shipper relying thereon to prove their execution by a duly authorized agent of the carier. Cunard S. S. Co., Limited, vs. Kelley et al., 115 Fed. Rep. (U. S.) 678.

Assumed Risk.—A longshoreman working in the hold of a vessel under an open hatch, and injured by the fall into the hatch of merchandise which is being loaded into another hatch, did not assume the risk. Young vs. Hahn, 69 S. W. Rep. (Tex.) 203.

Shipping—Breach of Charter.—A finding that the master of a vessel violated a charter by abandoning a wrecking expedition before completion of the work or expiration of the charter, without sufficient cause, affirmed. The Helios, 115 Fed. Rep. (U. S.) 705.

Liability of Vessel.—A ship chartered for a voyage by the owner, who afterwards agreed with the charterer to change the port of destination, is liable in rem for a breach of such agreement by the refusal of the master to obey the directions of the charterer, given in accordance therewith. The Donald, 115 Fed. Rep. (U. S.) 744.

Agreement to change port of discharge.—Evidence considered and held, to establish a contract between the charterer and owner of a ship by which her destination was to be changed en route, and she was to take her cargo to a different port from that originally contemplated, which agreement was broken by the owner. The Donald, 115 Fed. Rep. (U. S.) 744.

Bills of Lading.—A steamship company, whose agent was without authority issued bills of lading for goods then in a public warehouse, does not ratify such act and make the bills its own by receiving on board one of its vessels goods purporting to be those described in the bills, where by reason of a fraudulent substitution in the warehouse, of which it was ignorant, the goods actually delivered to it are not the same. Cunard S. S. Co., Limited, vs. Kelley et al., 115 Fed. Rep. (U. S.) 678.

Charter.—Forfeiture For Default in Payment of Hire.—Although the hire of a ship under a charter for a voyage may have been in default, where the owners made no demand for immediate payment, nor claim of forfeiture, but while the ship was on the voyage contracted wth the charterer for a second voyage, they were not absolved by such default from the duty of completing the voyage in accordance with the contract. The Donald, 115 Fed. Rep. (U. S.) 744.

Injury of Longshoreman.—A longshoreman, working under an open hatch in a vessel, was injured by a load falling into the hatch from a sling on a derrick, the apparatus at the time being used in loading another hatch. Plaintiff could have seen that the derrick was working, and others in the hold heard a shout of warning as the load approached the hatch, but plaintiff testified he did not. Held, to present no issue of contributory negligence. Young vs. Hahn, 69 S. W. Rep. (Tex.) 203.

Time Charter—Reservation of Lien on Sub-Freight.—A provision of a charter party that "the owners shall have a lien on all * * * * sub-freight for charter money due under this charter" cannot be applied, as against a cargo owner other than the charterer, beyond the amount of freight stipulated in the bill of lading; but to such extent it is valid and enforceable, as creating an admiralty lien on the freight, even where the charter is a demise of the ship. American Steel Barge Co. vs. Cargo of Coal ex the City of Everett, 115 Fed. Rep. (U. S.) 669.

Negligence.—Where a longshoreman, working in the hold of a ship under an open hatch, is injured by the fall of merchandise from a sling on a derrick, being used at the time in loading another hatch, and it appears that the load swung over the hatch under which the longshoreman was at work, because carelessly allowed to swing in that direction instead of over the hatch for which it was intended, the statement of the one whose duty it was to guide the load that he could not have prevented it could not overcome the other facts. Young vs. Hahn, 69 S. W. Rep. (Tex.) 203.

Ratificaton of Unauthorized Issuance.—The unauthorized issuance by an agent of a steamship company of bills of lading to a purchaser for goods then in a public warehouse, subject to the orders of the seller, who is bound by the terms of the sale to deliver the same on board, does not bind the company, so as to make it responsible for the goods while in the warehouse and before their actual delivery into its custody; and even an acceptance of the goods on board ship is a ratification of the contract of carriage made by the bills of lading only from the time of such delivery. Cunard S. S. Co., Limited, vs. Kelley et al., 115 Fed. Rep. (U. S.) 678.

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CLEVELAND, O., AUGUST 7, 1902.

CHICAGO bridges are continually being damaged by vessels moving in the river from dock to dock. The strong current experienced at times require great care and the assistance of tugs, especially in handling the larger class of boats.

CUSTOMS OFFICIALS are watching more closely than ever any infractions of the marine laws; tugs, power launches and passenger steamers are receiving the most attention. The customs officials are compelled to watch closely for violations in order to protect themselves as well as the government, for other agents of the Treasury Department are on the docks watching for negligence on the part of the servants of Uncle Sam.

NOT QUITE so many tugs have been placed "in commission" this week, either by the Great Lakes Towing Co. or the Licensed Tugmen's Protective Association, otherwise known as the Independent Line. Quite a number of the craft have been commissioned, but for all practical purposes they are temporarily placed "in ordinary" while awaiting employment. Should immediate occasion demand they will, no doubt, be equipped and fitted out with half a ton of coal and re-commissioned.

NOT CONTENT with reporting tugs, mud scows, dredges as well as all sorts of miscellaneous trading tonnage as being "in commission," or "in ordinary," the daily newspaper reporter now gets cargo hoisting machines, docks, and even bridges in or out of "commission" according as to whether they are in working order or not. In commission or in ordinary are purely naval terms and have no relation or place in the parlance of cargo or passenger carrying service, or in fact outside of a naval service proper. It is perhaps admissible to call cargo, freight, and freight, earnings, or a twin screw boat a steamer and a single screw boat a propeller, a side-wheel and stern wheel boats are of course also steamers, though not known as propellers, for the reason that they are propelled through the water by wheels and not screws, however, when an old established eastern marine paper in announcing the particulars of an intended launching says: "The vessel is well under way and will be ready to go overboard in August," we feel impelled to call the organ to time. What is to go overboard? and over which or what board? If the New York American Shipbuilder can explain this away, we will then be in a position to conceive how a fellow can lift himself by his own boot straps and go sailing along through space, hanging on thereto.

THE CANCELLATION OF OFFICERS' LICENSES.

The action of the Duluth local inspectors of steamboats in cancelling the license of the late master of the steamer George G. Hadley, until the expiration of the life of the document appears technically just as well as equitable from other standpoints.

It will be remembered that the Hadley in entering Duluth, June 7th, starboarded to a steamer close aboard on her port bow and heading in an opposite direction, a collision ensued, with the total loss of the steamer Thomas Wilson and nearly all hands. On an inquiry held at Duluth before the board of local inspectors both masters were held culpably negligent and their licenses dealt with.

Imagining that there was a chance of having the local inspector's decision annulled an appeal was taken in due course and the case re-opened with a hearing before the supervising inspector of the district at Dubuque, Ia. Needless to say the local inspector's decision was affirmed and the full measure of the judgment sustained, nor could any other result have been expected under the circumstances.

In this case there was not a particle of argument or justification to work upon in the appeal to have the decision of the local inspectors reversed. The original act, coupled with its fatal consequences, was so glaringly negligent and incompetent as to call for a positively drastic view and findings of the court, and it is not beyond our province to state that we fully concur in the decision as rendered by the locals and supervising inspector, not that such an expression bears weight one way or the other, but simply as we view the question from a technical standpoint and as it affects the interests of all licensed officers on the lakes and elsewhere.

The appeal, when taken before the higher authority ought to have been made for a mitigation of the judgment or sentence, as for instance, a limited suspension, failing which a plea could have been made for the issuance of a license of the next lower grade, to be held during the suspension of the original license, or, as a last resource, up to the time of its expiration. By this means the supervising inspector would have been placed in a position to temper justice with mercy and still permit the plaintiff (master) a chance to earn a living in the exercise of his chosen calling. Since, however, it was elected to either nullify the action of the local inspectors, thereby stultifying the service, or to abide by the total revocation decision, there was no other course for the supervising inspector to take, or no alternative left, but to positively uphold and endorse the findings of his subordinate officials, or, as it might be termed, the lower court.

Throughout the history of the steamboat inspection service it has never been found that the licensing officers were at any time too eagerly officious in suspending or cancelling the licenses issued by themselves or their colleagues in office. The annual renewals and consequently short life of even a total suspension or revocation left this avenue of reprisals wide open, and to that extent urged local inspectors to exercise the limit of their power of office in cases of negligence of officers being proved, while acting under their licenses, and no doubt the instances were numerous enough where the local inspectors must have known that a perpetual revocation would have been justifiable, instead of a paltry suspension of a month or two, or until the date of the expiration of the license or licenses in question, when, the applicant could appear before them as a candidate for re-instatement.

In the matter of cancellation of licenses, it has been taken for granted that the local inspectors hold a claim over or against a license after it has been issued and can exercise a controlling influence to a greater or less extent over the licensee. This is a wrong and crass assumption. The license is only granted by the officers appointed by the Treasury Department for this purpose after a candidate has undergone a voluntary examination showing his qualifications to act under a license should he so elect or desire. It is not compulsory for the licensee to be in continuous service, otherwise, the government would have to keep the lakes open all winter and find employment for all licensed officers when, for any assigned reason they might seek a change of servitude.

The simple application of a pilot or engineer, requesting that an official test be applied relative to his technical knowledge or mechanical skillfulness, and that a certificate as to the findings be handed him, is not a parallel case to the enlistment of a recruit in the regular army, nor has it the weight of continuous service involved, and made mandatory in the case of a person joining the navy.

The issuance of a license does not carry with it the promise of regular, steady or continuous employment at properly remunerative rates of compensation. It simply states "that the holder thereof has been found duly competent and qualified to fulfill the duties," etc., at the same time he may be at the point of starvation with several such documents in his pocket while the Federal soldier and sailor in leaving it all to Uncle Sam is like the "lily of the valley" (in the Solomanesque sense).

Another feature of the license cancelling question lays in the matter of obtaining evidence, from an attorney's point of view. Among the best legal counsel at several lake ports it has been held and asserted that the refusal of a licensed officer to serve in his official capacity, prior to an engagement on mutually satisfactory terms of labor and compensation therefor, constitutes a hindrance to commerce, and involves the revocation of a license up to the date of its periodic expiration. That licensed officers, by virtue of being such, should or could be placed on a witness stand and compelled to give evidence, answer questions, etc., on matters affecting their secret order affiliations, as pertaining to trade unionisms, as well as other irrelevant subjects, and be placed on trial for the retention or revocation of their licenses on the charge of refusing employment. It is further argued that if licensed officers can not be forced to give evidence regarding their personal affiliations, private conduct, etc., when unemployed, that they will also decline to furnish a statement of facts when in service and employment under their licenses at a time when the wilful act, negligence, or default of themselves or others may vitiate or jeopardize the right to retain their licenses.

In the latter case the right to use, serve or work under their licenses is in question and evidence regarding this right is mandatory, nor has it ever been denied in any measure, or at any time, not to give evidence and answer all questions in such cases, means expatriation and wilfully acceding to the forfeiture of any grade of license.

In the former case and where the officer is unemployed, or not working under the terms of his license, or where it is not in use or legally in question, it is more difficult to state as to what he should bear witness, or offer in evidence in connection with the unused document. A perusal of his diary, if he kept such, might or might not be edifying to the court or counsel. Certainly his lawful, social, moral or religious bearing or affiliations could hardly clash with or vitiate the license issued to him by the local inspectors regarding his skill and service as pilot, or tradesman, scientific navigator or professional and practical mechanician.

COLLISIONS.

The circumstances attending the collision off Duluth two months ago with the loss of nine lives and a valuable steel steamer loaded with iron ore was shortly followed by the sinking of the steamer Henry J Johnson off Spectacle Reef, Lake Huron, through colliding with the steamer Fred Pabst. This week the catastrophe has been re-produced with the sinking of the steamer City of Venice on Lake Erie and the loss of three lives.

These three casualties involved the loss of at least twelve lives, besides the untold sufferings of the survivors and in round figures a monetary loss of say about $600,000, including the damage done and the consequent detention from service of the three vessels still afloat.

Aside from the deplorable loss of life, attention should be directed to the fact that in each case the vessels still afloat backed away from the craft that they collided with and that the latter vessels soon foundered. It is, of course, generally known and accepted as being good seamanship for the vessel meeting the impact stem on to remain in the gap thereby occasioned until at least life had been rescued. How many, or if any lives have been sacrificed through this feature not being observed in these three latest collisions is of course beyond learn-

ing, the total of the lost only is known, and the sufferings of the survivors recounted.

The collisions on Lakes Superior and Erie were exactly similar in almost every respect, and especially so in so far as the relative positions of the colliding vessels were concerned as well as the weather conditions prevailing at the time. In each case the four vessels were proceeding on opposite and parallel courses, there appeared to be no danger or cause for colliding up to the moment of impact, if each maintained their course, yet the almost unaccountable casualties took place, and, judging from the experiences, none would seem to be the better or wiser therefor.

It can hardly be said that the officers in charge would have acted differently had they been more thoroughly conversant with the "Rules of the Road," nor may we even assume any inexperience in this direction. The vessels were proceeding on their respective courses, in full view of each other, and with the element of action entirely eliminated, as a matter of fact, and skilled practice complete inaction was all that was called for, and apparently what should have been strictly adhered to by the several officers in question, which leads us to observe that, in many such instances the best move is not to move at all, a precept well borne out in the cases under notice. The veriest tyro in the "Rules of the Road" as well as the most proficient, would not hesitate a moment in stating that there was no danger of collision between vessels so placed, that there was no point of action to illustrate, or steering rule in question and that the laws governing the "Rules of the Road" were inapplicable, as none needed to be acted upon, it being simply a case of "stand on," no danger of collision; but the fact remains that whether fear or danger was experienced three good steamers are now resting on the bottom and three "lame ducks" are in the hands of the ship builders and repairers.

The foregoing leads us to think that people on shore must imagine that there is a "nigger in the woodpile" somewhere, a sort of hole in the skimmer, cullender or colander, at some point. These officers are licensed by the Treasury Department, and pronounced skillfully competent. Is the license all that it should be? Are none but Americans on guard.

A LIFE-SAVING STATION AT LORAIN.

Lorain, situated about thirty miles west of Cleveland, is in need of a regularly equipped life-saving station. It is a port of growing importance and larger even to-day than its modestly disposed citizens seem to claim or realize, moreover, it is justly entitled to the consideration of the general superintendent of the life-saving service, and through him to be brought before the attention of Congress in seeking an appropriation for the establishment and up keep of this necessary aid to the welfare of the general commerce of the lakes, and Lake Erie in particular.

It is not exactly within the province of Hon. Sumner I. Kimball, General Superintendent U. S. Life-Saving Service, to take the initiative in this matter, or in similar cases which no doubt comes before him from time to time. The service is an improving and increasing one, and becoming of greater relative importance to the country as our waterborne commerce advances by leaps and bounds. The head of the service is keenly alive to all that concerns his department and the attributes of highest efficiency governing or leading thereto. His sympathies have not been enlisted nor his views challenged on the Lorain situation.

In the popular parlance, it is now up to the Mayor and leading citizens of Lorain, either to have a regularly equipped life-saving station at their port, opened and ready for service by next season, or to permit the establishment of such to go by default for a decade hence.

Gratuitous advice may not always, in fact as a general rule is not usually, accepted with good grace, but in this instance, there can be no advocacy or arguments advanced derogatory to such action by the Mayor if he would strenuously indicate his desire in the matter before the city council, and as a further leverage of propulsion in the right direction have a well worded preamble to a petition endorsed by all important tributary interests to the use and welfare of the port and its important commercial and shipping industries.

TO IMPROVE CANAL LOCKS AT THE "SOO".

During the past two years Assistant Engineer and Canal Superintendent Joseph Ripley, stationed at the "Soo," has been at work looking into the plans as to the best method to provide better locking facilities.

Major Bixby, Corps of Engineers, U. S. A., in charge of this section, with headquarters at Detroit wrote to Mr. Ripley, recently, telling him what the last river and harbor bill had done for St. Mary's river, and alluded to the paragraph providing for the expenditure of the balance of the appropriation.

Mr. Ripley was asked to give his views as to how he would use the unexpended balance in widening the canal above the locks in such a manner as to get the quickest results, and in doing so interfere as little as possible with navigation, and leave the channel in a condition most useful to general navigation. He was also asked for his views as to further work of modification of the locks, with a view of making recommendations for appropriations by the next river and harbor bill two years from now.

Major Bixby, in seeking this information, is endeavoring to ascertain whether it would be best to increase the capacity of the Wietzel lock or build an entirely new one and along this line of investigation determine for himself the size needed, and the probable cost.

LAKE FREIGHTS.

There is a steadier feeling to report in the lake freight market this week, as there is a slight increase in grain rates and bituminous coal is being shipped freely, while the iron ore chartering remains brisk, with freights firm at opening rates, and July showing a total of nearly 4,074,000 tons as being sent forward from the shipping ports and received ex lake, which is the greatest monthly volume ever transported.

Iron ore—The freight quotations hold at the season's opening rates, every possible ton is being handled that can be, and it is expected that such will obtain up to the time that the ore begins to freeze in the pockets, and the difficulties become too great for shipping, although there is a rumor afloat that there will be an early close. Otherwise, the only feature is a moderate detention experienced at discharging ports with a loss of time also at the ports of loading, but this is being accepted as the custom of the trade this season.

Grain—The grain trade need hardly be expected to astonish shipping with its volume, but the beginning of the heavier fall shipment cannot be much farther away. The new wheat will begin to move toward the middle or surely toward the last of this month, and September will see the shipment of last year's corn crop, which ought to help freights out. The rates are already brightening up and the shippers are expecting to be called upon to pay much better rates before the season is over. The heaviest chartering in the grain trade for several weeks was done at Chicago on Wednesday, rates holding firm at 1¼ cents for corn and 1⅜ cents for wheat to Lake Erie. In all some 850,000 bushels were placed for shipment. The Duluth rate is dull at 1¼ cents, the same as it was a year ago at this time.

Coal—Rates are steady and shipments of soft coal from Lake Erie ports are brisk, but there is some demur at the detention experienced at loading ports, due to the number of boats chartered and the receipts by rail not being as large as possible.

Lumber—The market shows little or no change and does not now indicate any radical change from what has been apparent for the last two months. All believe firmly that the supply of lumber to be shipped is large, and as there can hardly be any further excuse for a non-shipment, on account of the condition of the lumber, many are wondering why the supply should be so short and the material continually being piled at the head of the lakes. The shippers are not demanding any large number of boats and the general lumber carriers, especially the smaller craft, continue to make shift with whatever cargoes they can pick up, taking coal, pulp wood or Georgian Bay lumber, as the various cargoes and terms are offered from other ports than those at the head of the lakes.

EFFECT OF THE COAL STRIKE.

Vessel owners show some uneasiness over the duration of the coal strike. Many of them contend that should it last into the fall months, it will be the means of an early lay-up. They know that the ore will last as long as the mines and docks can handle it, but fear is expressed for the crowded condition of the docks and an early frost.

Heavy shipments of grain this fall will probably keep a large number of boats employed, but without the coal for return cargoes the business will not only be less profitable, but trips will be made more rapidly, and as a result considerable tonnage may not be chartered. Vesselmen are not giving up hopes of the coal miners' trouble being settled in time to balance their business in matters of a cargo both ways. They think that sufficient pressure will be brought to bear before September to bring about a settlement. Sentiment does not attain its height until the scarcity of coal is actually felt, they say, and by next month the condition will have been fully realized.

CLEVELAND

CONTINUED FROM PAGE 7.

The steamer City of Cleveland, of the Detroit & Cleveland Line, will be back on her regular run on Saturday.

In answer to a statement to the effect that the Ashtabula tugmen were dissatisfied with the action of the grand president in the recent conference, Ashtabula local, L. T. P. A., No. 3, has issued the following statement: "In no way are we dissatisfied with the action of the grand grievance committee. Our lodge, L. T. P. A., absolutely refuses to work with non-union men; there was never a word spoken against the action of the grand grievance committee by any member or members of this lodge, No. 3, L. T. P. A. We uphold the action of our grand president and will continue to do so." The above statement was adopted at a special meeting of local, No. 3, L. T. P. A., at Ashtabula, held on Tuesday.

Harbor Master Lynch called on a number of vessel owners and dock managers, this week, and asked them to make some arrangement to keep the ore carriers out under the breakwater until there is a chance for them to get to the docks. Capt. Lynch says that vessels have, during the past week, been three deep in the river bed, and that it was impossible to move a boat after she was unloaded. The harbor-master says it would be an easy matter to keep track of the vessels as they arrive in the outer harbor, and then bring them inside in their turn when there was room at the docks. The vessel men and dock managers think well of the harbor master's plan, and something along that line will probably be done. The bunching of vessels not only delays the boats, but the docks lose considerable time on account of getting vessels out of the jam and under the hoists to discharge.

Capt. William Cumming, one of the best known and most successful masters on the lakes, died at his home on Lakeland avenue, on Sunday night, of heart failure. He had been sick for some time, and did sail this season. Capt. Cumming was sixty-one years old, and followed the lakes from boyhood. He was in the employ of M. A. Hanna & Co. for a number of years, and sailed the Cambria, the first steel steamer built by that firm in 1887, and the following year he bought out the steamer Corsica, of the same line. Capt. Cumming was in command of the last named boat until 1896, when he took command of the steamer Coralia, which was also built for the Mutual Transportation Co., and which was the largest boat on the lakes when she came out. After the United States Steel Corporation secured control of the Hanna docks, Capt. Cumming remained in charge of the Coralia until last fall, when he met with an accident at Duluth, and had to leave the ship. Last spring he was appointed master of the steamer William F. Fitch, of the Franklin Transportation Co., of which Mr. D. R. Hanna is president. When she building, to look after the work of fitting her out. He was was about ready for sea he went to Detroit, where she was buildin~ to look after the work of fitting her out. He was only there a few days when he had to quit on account of his health. On his return home he resigned command of the Fitch, and for the past month or six weeks he had not been able to be about. Capt. Cumming was a member of the Shipmaster's Association.

WHAT IT COSTS TO BUILD A WAR SHIP.

Rear Admiral Melville, Engineer-in-Chief of the United States Navy, declares that "it costs us at least 30 per cent. more than it does any European Power to build a warship." That is, the difference is almost exactly the same as it is in modern steel ships of the merchant marine. To illustrate his point, Admiral Melville compared the price of our protected cruiser Olympia, of 5,870 tons—$2,979,283—with the $1,466,986 of the 5,750-ton British cruiser Gladiator.

Admiral Melville names still other vessels in his table of comparisons, and his significant summing up is that 192,574 tons of American men of war cost $89,857,075, while 206,500 tons of British men of war cost $70,675,532. As to the cause of this disparity, the accomplished head of the Bureau of Steam Engineering contents himself with declaring that "the increased cost of warship construction in the United States is simply due to the same reasons which have induced Congress to establish a protective tariff against all manufactures of foreign countries." That is, it is the higher range of the wages of American labor, and the relative youth of American industry. The raw materials—the coal, the iron and the steel—cost no more in the United States than they do in Great Britain. Indeed, whatever advantage there is in these things is in our favor. But American skilled mechanics are paid more than British mechanics by upwards of 60 per cent. That, even with this handicap, the difference in the cost of the finished warship is about 30 per cent. is adequate proof of the efficiency of the American workmen.

If we should build a navy as great as England's—that is, if we should engage in warship construction on a huge scale, and thus avail ourselves of all the economies of large and constant production—we might perhaps meet the English warship price as we have actually met the English price in steel rails and locomotives. But in shipbuilding for war or commerce, that time is still far away.

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SUN'S AMPLITUDES.

The following approximate amplitudes of the sun's rising or setting will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the sun's setting. The bearing may be taken when the sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Aug. 9	E. 22° N.	= N. 6 E.	= E. N. E.
Aug. 16	E. 19° N.	= N. 6¼ E.	= E. by N ¾ N.

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Aug. 9	E. 23° N.	= N. 6 E.	= E. N. E.
Aug. 16	E. 20° N.	= N. 6¼ E.	= E. by N ¾ N.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Aug. 9	E. 23° N.	= N. 6 E.	= E. N. E.
Aug. 16	E. 20° N.	= N. 6¼ E.	= E. by N. ¾ N.

LAKE SUPERIOR, LAT. 48° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Aug. 9	E. 24° N	= N. 5⅞ E.	= E. N. E. ⅛ N.
Aug. 16	E. 21° N.	= N. 6⅛ E.	= E. by N. ⅞ N.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

IRON AND STEEL IMPORTS AND EXPORTS.

An increase of ten millions in imports of iron and steel manufactures and a decrease of nineteen millions in the exports of that class of articles, is the most striking characteristic of the commerce of the year just ended. The total imports of iron and steel manufactures in the fiscal year just ended were $27,180,255 in value against $17,874,789 in the preceding year, while the exports of iron and steel manufactures were $98,552,562 against $117,319,320 in the preceding year. This makes the imports of the year larger than those of any preceding year since 1893. This subject is discussed as follows in the annual report of the Chief of the Bureau of Statistics just completed:

"The most remarkable feature in the year's commerce in manufactures has been that which relates to the movement in the manufactures of iron and steel. In this class of manufactures the exports have fallen off $19,000,000 in round figures, and the imports have increased $10,000,000. For many years prior to 1901 the exports of iron and steel had steadily increased while imports had steadily decreased. Exportations of iron and steel manufactures increased from $12,000,000 in value in 1880 to $121,000,000 in 1900, while imports of iron and steel decreased from $67,000,000 in 1882, to $12,000,000 in 1899. In 1901, however, the exports of iron and steel fell to $117,000,000 and in 1902 to $98,000,000, while the imports of iron and steel increased to $20,000,000 in 1900, and to $27,000,000 in 1902. Thus the exports of iron and steel in the fiscal year just ended are $23,000,000 below those of 1900, and the imports of iron and steel are $14,000,000 above those of 1899; the total imports of iron and steel for the year 1902 being greater than in any year since 1893. This increase in imports of iron and steel has been general, practically every class showing much larger figures of imports in 1902 than in 1901. Tin plate, for example, shows an increase of over $2,000,000; ingots, blooms, and bars over a million dollars; pig iron over a million, and other classes in about the same proportion."

It seems not improper to add to the above statement of the causes of reduction in exports of iron and steel that one of the principal causes of the low prices in foreign markets seems likely to terminate in the near future. These reductions in prices were, it is stated on good authority, due in part to excessive exportations of iron and steel manufactures from Germany, made at unusually low prices with the purpose of disposing of an accumulated surplus caused by overproduction and the reduced home demand due to the recent temporary depression existing in the industries of that country. This surplus having been largely disposed of and the depression having apparently passed its most acute stage, it is believed that the exports of iron and steel from Germany will soon resume normal conditions, both as to quantity and prices, and that with this, one of the important causes of the reduction in prices of iron and steel manufactures in the foreign markets will disappear and normal conditions in our own export trade be resumed.

Pledge of Freight.—It is competent for a time charterer, by a provision in the charter, whether it is or is not a demise of the vessel, to pledge the freight to be earned by her during the terms to secure the payment of the charter hire; and such a provision gives the owner an equitable lien in admiralty, as of the date of the charter, on any freight subsequently stipulated to be paid under a bill of lading, and subrogates him to the lien of the charterer for the freight, and to the remedies of the charterer to enforce its payment. American Steel Barge Co. vs. Cargo of Coal ex the City of Everett, 115 Fed. Rep. (U. S.) 669.

Authority of Servant.—A longshoreman was injured on account of the defective adjustment of a derrick used for loading a ship. The one acting as foreman in the absence of the regular foreman had absolute charge of the work and the adjustment of the machinery, and had taken the place of another employe, and permitted the latter to go and hire more men. The employer gave no testimony to show that such acting foreman was not in authority. Held, that the acting foreman was not a fellow servant, but a vice principal. Young vs. Hahn, 115 Fed. Rep. (U. S.) 203.

COUNTER ATMOSPHERIC CURRENTS.

TORNADOES, HURRICANES, CYCLONES, AND PRECIPITATION PRODUCED BY COUNTER ATMOSPHERIC CURRENTS.

On the front of an advancing cold wave there is often a long band of rain area stretching from the Great Lakes to the Gulf of Mexico, but without cyclonic formation, the precipitation being in fact caused by the upward lift of a warm southerly current whch overflows the wedge-shaped cold wave in its southward movement. This is a dynamic uplift by overflow, instead of by vortical gyration, and it is sufficient to cause condensation and precipitation by the mechanical action of an underflowing stratum of very low temperature. * * * * In the summer season, local thunderstorms are quite as likely to happen in the midst of an area of high pressure as in that of low pressure, but here the vertical convection distinctly exists and arises from a superheating of the lower strata. If buoyancy of the lighter air is the principal cause of the gyration of cyclones, then we should expect to find a similar rotatory motion developed in the formation of cumulus clouds and thunderstorms in hot summer weather, when the vertical component is evidently strong. But on the contrary, while the ascension of the heated air is clearly visible in these clouds, there is usually no evidence of gyration of the cyclonic type. * * * * * * * It can be proved conclusively from observations that two counter currents flow together at the places where tornadoes are formed, where the tropical hurricanes are generated, and also where the cyclones of the middle latitudes are produced. These currents are especially active in the strata one or two miles above the ground, and this is probably the reason why they have not received due attention in constructing the theory of storms. It may be concluded that the local overheated central region does not exist in cyclones as the chief cause of their motion, and that the theories fail which depend upon it.—Review of Ferrel's and Oberbeck's theories of the local and the general circulations, by Prof. F. H. Bigelow, in the Monthly Weather Review for April, 1902.

Detail of Work.—Where a deckhand on a tugboat was injured by stepping on a siphon pipe which another deckhand had carelessly left lying on the deck—it being the duty of the deckhands to keep the deck cltar, the negligence was in a mere detail of the business, for which the owner of the boat was not responsible. Direct Nav. Co. vs. Anderson, 69 S. W. Rep. (Tex.) 174.

MONTHLY SHIPBUILDING RETURNS.

The Bureau of Navigation reports 106 vessels of 28,209 gross tons were built in the United States and officially numbered during the month of July, 1902, as follows:

	WOOD.				STEEL.				TOTAL.	
	SAIL.		STEAM.		SAIL.		STEAM.			
	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.
Atlantic and Gulf	37	861	25	1,353	1	40	4	1,938	67	4,192
Porto Rico	2	12	.....	.....	.....	.....	.....	.....	2	12
Pacific	7	3,358	9	315	.....	.....	.....	.....	16	3,673
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Great Lakes	2	34	2	43	.....	.....	5	19 782	9	19,859
Western Rivers	.....	.....	12	473	.....	.....	.....	.....	12	473
Total	48	4,265	48	2,184	1	40	9	21,720	106	28,209

The largest steel steam vessels included in these figures are:

NAME.	GROSS TONS.	WHERE BUILT.	OWNER.
Harold B. Nye	4,310	Lorain, Ohio	American Ship Bld'g. Co.
A E. Stewart	3,943	W. Bay City, Mich	American Ship Bld'g. Co.
James H. Hoyt	3,934	W. Superior, Wis	A. B. Wolvin.
Panay	3,811	Chicago, Ill	American Ship Bld'g. Co.
Thomas Adams	3,784	Toledo, Ohio	Craig Ship Bld'g. Co.

NOTICE TO MARINERS.

DOMINION OF CANADA ONTARIO.

All bearings unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

LAKE ERIE—POSITION OF WRECK TO THE EASTWARD OF MIDDLE ISLAND.—The wreck of the steam barge Dunbar lies in 7¼ fathoms water about 5 1-5 miles S., 86° E. from Middle Island. The mast and part of the pilot house are above water.

The following angles were taken from the wreck:

Northwest extremity of Kelley Island, 0°; north extremity of Middle Island, 31 34′; Lighthouse Poin, Pelee Island, 65 35.

Variation in 1902: 1° 45′ W.

Source of information: Report, 17th July, 1902, from Capt. E. Dunn, Master D. G. S. Petrel.

F. GOURDEAU,
Deputy Minister.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA, CANADA, 23rd July, 1902.

Pilots, masters, or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notice of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada. Such communications can be mailed free of Canadian postage.

WE MUST HAVE SHIPS.

In view of the Congressional elections next November we must not neglect to impress on the country, and on all congressional candidates, the fact that our merchant marine requires building up by means of protection in the form of a liberal ship subsidy bill. If we get enough more ocean-going steamships, we can be saved the humiliation (and expense of $200,000,000 yearly) of being forced to ask foreigners to carry our goods for us. Our motto should be, "American goods in American made and owned ships, navigated by American officers, and, as far as possible, American seamen."

When the American flag is flying at the mast head of an American vessel in every port, and on every sea, interest in both our navies, mercantile and war, will increase.

Our bright, capable young men will be attracted to seamanship as a profession, one of the noblest in the world. That is what gave England her centuries of pre-eminence in the world's carrying trade. The chance for the future is ours. Why do we not take it? Why is it that our Commissioner of Navigation is compelled to report that the increase in the number of our sea-going officers in the Navy, is only 58 since 1893, while the tonnage has increased by 582,179 tons? The total tonnage of our Navy, authorized, completed, and under construction, is 827,022, and we have only one sea-going officer to every 806 tons displacement. In 1893 we had one officer to each 254 tons.

Seamanship as a profession has not been popular. The passage of a liberal ship subsidy bill will help to make it so.

WALTER J. BALLARD.

Schenectady, N. Y., August 4.

Priority as Between Lien and Right of Set-off.—A lien on sub-freights reserved by a ship owner in a time charter will be given preference over a general right of set-off existing in favor of a cargo owner against the charterer, especially where, so far as appears, his liens, which relates back to the date of the charter, is prior to the charterer's indebtedness to the cargo owner. American Steel Barge Co., vs. Cargo of Coal ex the City of Everett, 115 Fed. Rep. (U. S.) 669.

JAMES SPENCE ROBERTSON.

If JAMES SPENCE ROBERTSON belonging to Dundee, Scotland, who was, it is believed, about 1889 in Tawas City, Michigan, U. S., and who was, it is understood, latterly acting as a Steward on a Lake Steamer running out of Bay City, Michigan, U. S., will communicate with the Subscribers, he will learn something to his advantage.

REID, JOHNSTON & CO.,
34 Reform St., Solicitors.
Dundee, Scotland.

SUPERVISING INSPECTOR'S DECISION.

(CANCELLATION OF MASTER'S LICENSE.)

The Supervising Inspector of the Fifth District, of the Steamboat Inspection Service, John D. Sloane, Dubuque, Ia., has rendered his decision in the case of Capt. Fitzgerald, and submitted his findings to the local inspectors, Messrs. Monaghan and Chalk, U. S. Local Inspectors of Steamboats at Duluth, Minn., as follows:

"In the matter of the revocation by you of the license of Capt. Michael Fitzgerald, June 12, 1902, for violation of the rules governing navigation of the Great Lakes, while in command of steamer George G. Hadley, on the 7th day of June, 1902, resulting in a collision between said steamer and steamer Thomas Wilson, on Lake Superior, in the vicinity of Duluth Piers, sinking the latter steamer and drowning nine of the crew, I wish to advise you that in accordance with his appeal from your decision, dated June 20, 1902, I granted Capt. Michael Fitzgerald a hearing at Dubuque, Iowa, August 1, 1902, at which time Capt. Fitzgerald's me, and giving due consideration to the argument presented by Mr. C. E. Kremer, of Chicago, Ill., Capt. Fitzgerald's attorney, why your decision should not be sustained.

After carefully reviewing the evidence taken before you, in addition to testimony given by Capt. Fitzgerald before me, and gving due consderation to the argument presented me, and giving due consideration to the argument presented by Mr. Kremer, in Capt. Fitzgerald's behalf, I am of the opinion that the evidence submitted shows conclusively that the action of Capt. Fitzgerald in changing the course of steamer George G. Hadley, by starboarding wheel of said steamer, when in close proximity to the approaching steamer Thomas Wilson, was the *primary cause* of the collision.

I therefore sustain you in your decision, and have this day notified Michael Fitzgerald to that effect."

INLAND LLOYDS SUPPLEMENT.

The August supplement of Inland Lloyds, Capt. A. B. Drake, Buffalo, Chief Inspector, contains the following particulars of new tonnage: Steamer Thos. Adams, 3,784 tons gross, built by the Craig Ship Building Co., Toledo, O., for the Adams Transportation Co., Detroit, value $210,000.

Steamer Frank H. Goodyear, 4,776 tons built at the Cleveland yards of the American Ship Building Co., to the order of John Mitchell & Co., and hailing from Buffalo, value $265,000.

Steamer Harold B. Nye, 4,310 tons; built at Lorain, O., to the order of Hawgood, et al., hailing from Fairport, O., value $235,000.

Steel barge Thos. F. Newman, 855 tons, built at the yards of the Jenks Ship Building Co., Port Huron, for the Union Towing & Wrecking Co., and hailing from Duluth, Minn., classed A1½, and valued for insurance purposes at $50,000.

THE INFLUENCE OF SUN SPOTS.

Since the discovery of the periodicity of sun spots, a large place in scientific literature has been occupied by articles tending to establish some connection between this and variable terrestrial phenomena. It is natural that it should be inferred that any considerable change in the sun must bring about numerous direct or indirect consequences upon the earth, but one who has given the subject no attention will be startled to find that the following list contains but a portion of the terrestrial phenomena asserted, on more or less authority, to be influenced by the sun-spot cycle: Magnetic and electrical conditions, including the aurora boreadis; air temperature; barometric pressure; humidity; the winds; cloudiness; rainfall; depth and quantity of discharge of rivers; retreat and advance of glaciers; number of shipwrecks; bank failures and commercial crises; the crops; prices of grain; famines; wars, and even flights of butterflies.

It would probably be easier to show that the number of articles concerning sun spots in scientific periodicals has an 11-year period than to prove all the above-mentioned relations to the general satisfaction.

The question before us is this: Through what physical connection is the presence of sun spots associated with variations in terrestrial magnetism and with meteorology? * * *

Almost without exception, writers on this subject who have ventured an opinion have attributed these meteorological changes to alterations in the amount of the solar radiation. There seems to be a preponderance of suggestion that the sun radiates more at sun-spot maximum, although there are not wanting many who hold precisely the contrary opinion.—The relation of the sun-spot cycle to meteorology, by C. G. Abbot, in the Monthly Weather Review for April, 1902.

REPORTED BY THE LOOKOUT

The hull of the boat which is being built at Ashtabula for the Ohio Fish and Game Commission, has been completed, and her cabin is nearly on. The engine will soon be placed, and the boat will be ready for service in about a month.

Marconi, on board the Italian flagship Carlo Alberto, at Cronstadt, Russia, cabled to his London office that he had received wireless signals from the Cornwall station, about 1,400 miles distant, partly overland. Complete messages were received as far as Skagen, Denmark, about 850 miles from Cornwall.

Unless there is a speedy change in the situation this season will be the worst in the history of Milwaukee as a coal receiving port. The month of July has been the worst of the season. Arrivals of coal-bearing boats are scattering and the coal docks, which usually are full at this time, are nearly all stripped of the coal they held when the anthracite strike was declared, and much the same can be said of Chicago.

Discussing the Canadian Pacific railway tender for the fast Atlantic steamship service to be subsidized by the British and Canadian governments, to the extent of $1,500,000 per annum, Sir Thomas Shaughnessy, the president of the company, stated that the plans contemplated the construction of four twenty-knot passenger steamers, and ten or eleven 10,000 ton cargo boats, with a speed of fifteen knots. Other railway companies, he said, would be placed as the Canadian Pacific, as regards traffic, etc.

The Lackawanna Steel Co. has let the contract for an immense ore dock to be built on the banks of the canal now in course of construction at the steel plant at Stony Point. The contract involves the sum of $800,000. The dock will be one of the most extensive in the country, it is to be built wholly of concrete and will be reinforced by iron lathing. It will be three-quarters of a mile in length and 280 feet wide. The dock is to be finished in seven months.

"The American Industrial Conquest of Europe," and many similar titles to articles in the daily press and the magazines show the trend of events in the industrial world. The inventive genius and high order of skilled labor in the United States has gradually brought the country to a point where she is not only supplying her own needs, but attending to most of the material wants of other countries. Perhaps in no one line is this specializing of work shown more positively, following that line with tirelesss and ceaseless energy, than in the development of the American Ship Windlass Co., of Providence, R. I. The business was established in 1857, and soon the Providence windlass, made by the American Ship Windlass Co., was the standard, and it has remained so ever since.

Jack was not always caught napping, even in the old days, as witness the wheel damage incident. Standing idly at the wheel in a calm, Jack whittled away at the 'midship spoke until he had made a small ring thereon. The captain, not being in the best of humors, noticed the sacrilege, logged the tarboiler and charged up on his account of wages the price of the new wheel from that date. On reaching port several months afterwards the sailor collected by due process of law, rent from the ship for the use of his wheel from the date that he was logged and charged up for it. The sister yarn is told about Jack cutting his initials on the palm of the anchor fluke and levying on ship, freight and cargo, when it became absolutely necessary for the safety of all concerned to use his anchor.

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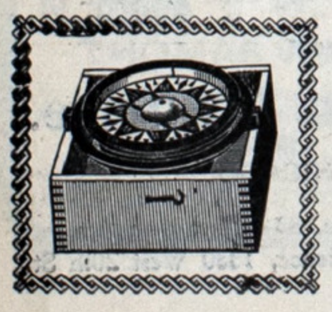

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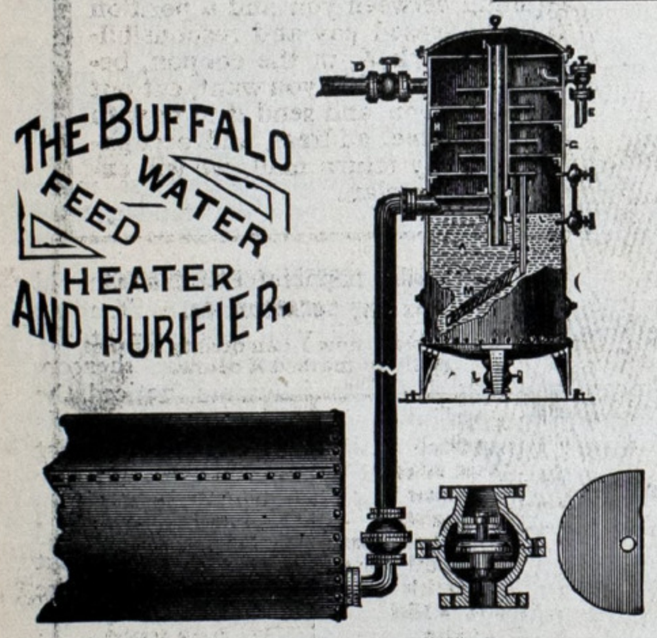

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Mitchell Transportation Co.'s steamer Hendrick S. Holden.

Minnesota Iron Co.'s steamer Presque Isle.

American Steel Barge Co.'s steamer Alex. McDougall.

Lake Michigan & Lake Superior Transportation Co.'s steamer Manitou.

Bessemer Steamship Co.'s steamers S. F. B. Morse and Douglas Houghton.

American Transportation Co.'s steamers John Harper and Alex. Nimick.

Red Star Line's steamers Robert Mills and Wyoming.

Wilson Transit Line's steamers W. D. Rees and Andrew Carnegie.

And the steamer William R. Linn.

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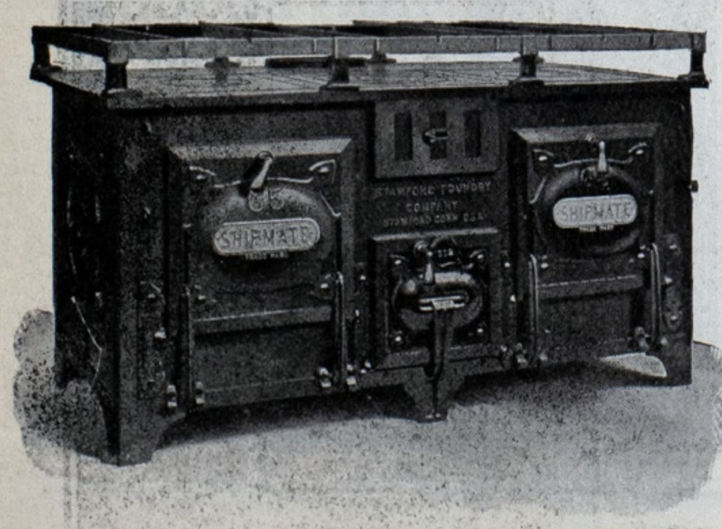

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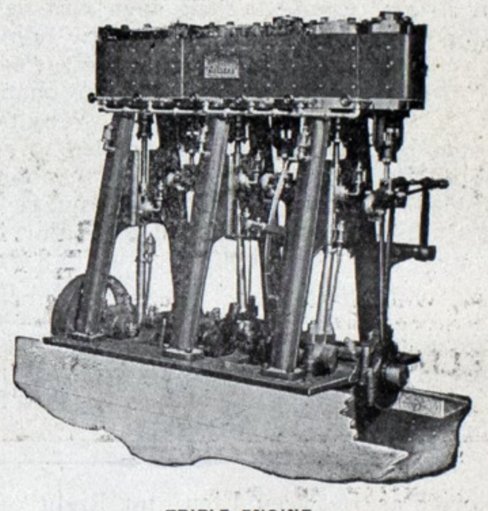

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BRITISH STEAM TONNAGE DEPRECIATING IN VALUE.

As instancing the depression which has taken place in the value of steamers under the British flag during the past year or so, Fairplay, London, furnishes a list of a score of vessels giving their comparative values from which we quote as follows:

A steamer, 2,991 tons gross, and 4,600 tons deadweight, built in 1890, was purchased that year for $140,600, it is estimated that her present value is $90,000, and that by a forced sale she would fetch only $80,000. Another vessel of 2,823 gross and 4,500 tons deadweight, built in 1894 and purchased by the same company as the above in 1900 for $150,000 is now valued at $115,000 at ordinary sale, and at forced sale, $100,000. A steamer of 3,013 tons gross, and 4,700 tons deadweight built in 1894 was purchased in 1900 for $190,000, and she is now estimated to be worth from $100,000 to $115,000. In the case of a new 5,600 ton steamer recently delivered, it is estimated that the boat is now worth from $160,000 to $175,000, whereas her contract price was $225,000.

The foregoing is supplemented by the following: In September, 1900, a 5,850 ton deadweight steamer building on the Tyne and about ready for service was sold for $250,000, a new vessel of this size would now be worth under $200,000, the first value is at $47.75 per ton deadweight and the latter at $34.20 per ton, thus showing a decrease in value of $8.56 per ton deadweight in less than two years. To continue a few more of these instances it is noted that a steamer of 4,600 tons deadweight, or carrying ability was sold by auction in August, 1900, for $150,000 and resold in November last for $89,000. A ten year old, 2,400 ton steamer was sold last February for about $45,000.

At the end of 1900 new steel steamers of 3,000 tons deadweight were selling at about $50 per ton; the price now is a little over $35 per ton. In October 1900, a new 4,500 ton deadweight steamer was valued at about $210,000, and in October last year at about $165,000; such a vessel now would be worth about $150,000. The highest price realized for a new 5,000 ton deadweight steamer was $225,000 and the lowest $140,000; the present price being about $163,000. Generally speaking, new tonnage has depreciated in value during the past eighteen months by about 25 to 30 per cent., but in second hand steamers the depreciation appears to have been greater, up to about 40 per cent—as will be seen by the above instances.

BIDS FOR A FLOATING DOCK.

The Navy Department will soon call for bids for a floating dock that will accommodate a 16,000-ton battleship. The dock is to be built in the United States and towed to the Philippines.

This will be one of the largest floating docks ever constructed. The amount available is $1,250,000, and Admiral Endicott, U, S. N., of the Bureau of Yards and Docks, has about completed the specifications under which the structure will be built.

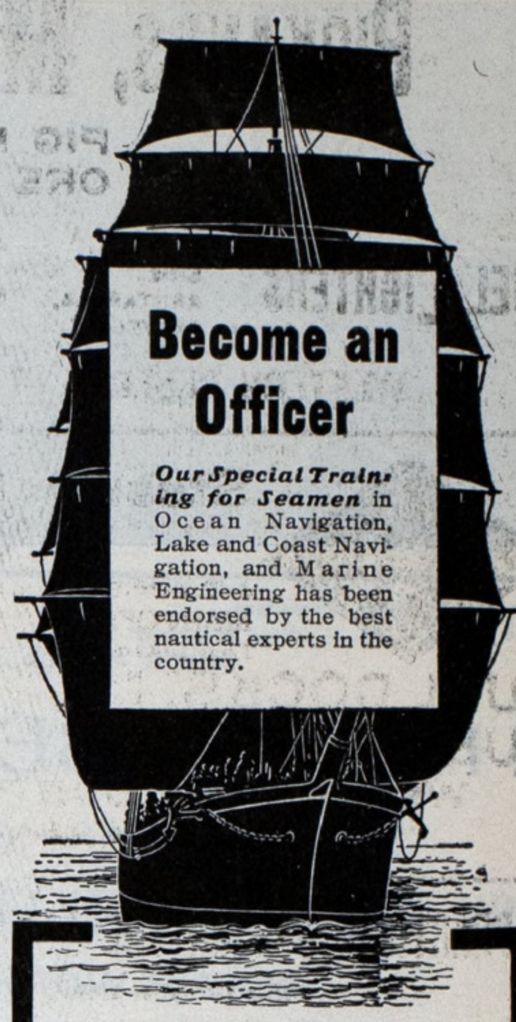
Whether it will be towed across the Pacific or across the Atlantic through the Seuz Canal, will depend upon the place of its construction, but in any event the towing of this gigantic steel structure such a distance will be an important undertaking.

Government Proposals.

U. S. ENGINEER OFFICE, Buffalo, N. Y., July 23, 1902. Sealed proposals for hire of dredging plant for excavation in Niagara River and Tonawanda Harbor will be received here until 11 A. M., August 22, 1902, and then opened. Information on application. T. W. Symons, Major, Corps of Engineers. 30-34

U. S. ENGINEER OFFICE, Milwaukee, Wis., July 28, 1902. Sealed proposals for dredging at Menominee Harbor and River, Mich., and Green Bay Harbor, Wis., will be received here until 12 noon, standard time, Aug. 15, 1902, and then publicly opened. Information furnished on application. J. G. Warren, Major, Engrs.

U. S. ENGINEER OFFICE, Buffalo, N. Y., July 26, 1902. Sealed proposals for dredging and construction work at Erie Harbor, Pa., will be received here until 11 A. M. August 15, 1902, and then opened. Information on application. T. W. Symons, Major Corps of Engrs.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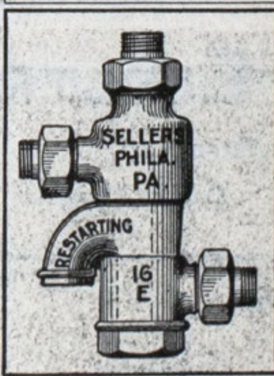

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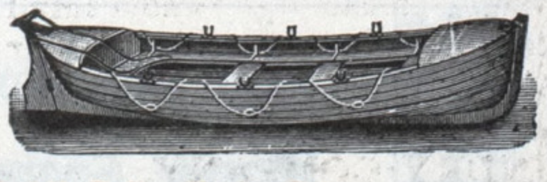
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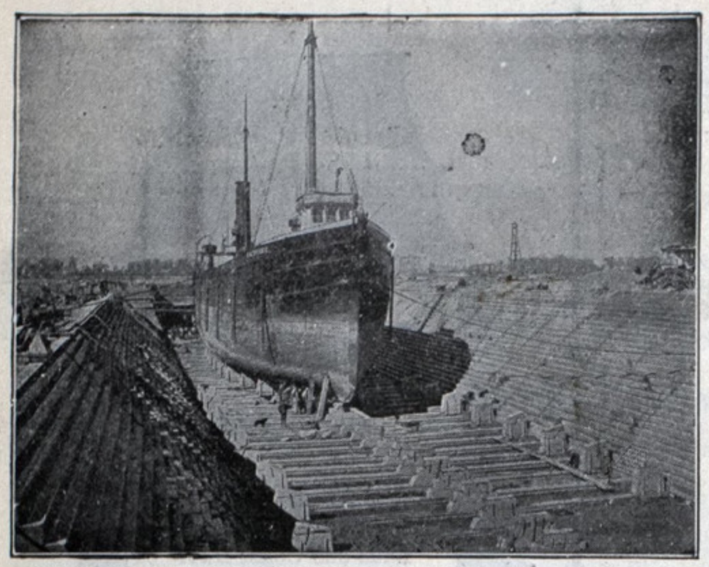

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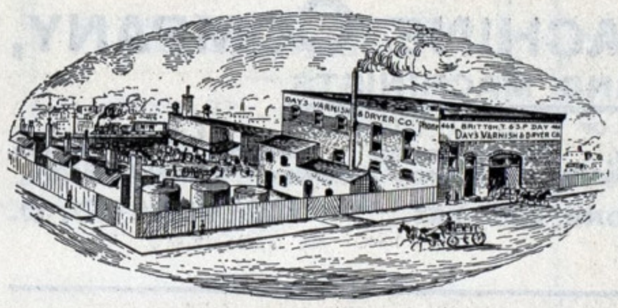

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